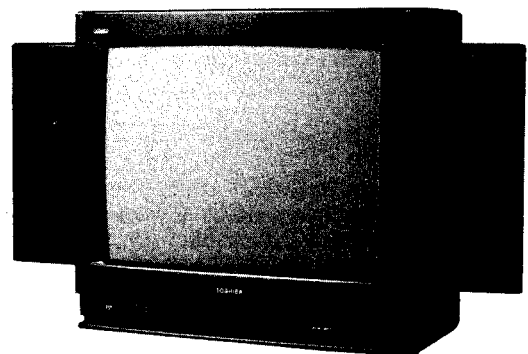


TOSHIBA

COLOUR TELEVISION

218S9F



SPECIFICATIONS

| | |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Power Rating : | 88 watts, AC 220 volts, 50 Hz |
| Aerial Input Impedance : | 75 ohm unbalanced type for VHF and UHF |
| Receiving Channels : | SECAM-L Standard : <ul style="list-style-type: none"> VHF channels B to C, 1 to 6, B to Q (70 to 86) UHF channels 21 to 69 |
| | PAL B/G Standard, SECAM B/G Standard : <ul style="list-style-type: none"> VHF channels 2 to 4, 5 to 12 and S1 to S20 UHF channels 21 to 69 |
| | PAL I Standard : <ul style="list-style-type: none"> UHF channels 21 to 68 |
| | PAL, D/K, SECAM D/K Standard : <ul style="list-style-type: none"> VHF channels 1 to 12 UHF channels 21 to 69 |
| | PAL, SECAM 50 Hz/60 Hz (For Video Disk playback) |
| | 4.43NTSC (For VCR playback), NTSC (3.58 MHz) (Video mode only) |
| Intermediate Frequencies : | Picture I-F carrier frequency : B/G, D/K..... 32.7MHz(VH,U) 37.4MHz(VL) <ul style="list-style-type: none"> L, I 32.7MHz |
| | Sound I-F Carrier Frequency: L..... 39.2MHz <ul style="list-style-type: none"> B/G 38.2MHz(VH,U) 31.9MHz(VL) D/K..... 39.2MHz(VH,U) 30.9MHz(VL) I..... 38.7MHz |
| Picture Tube : | 21 inches, A51EBV12X01, 510 mm (measured on diagonal of viewable picture area), 90° deflection |
| Sound Output : | 10.0 watts (at 10% harmonic distortion) × 2, Max. 15 watts × 2 |
| Speakers : | 100 mm round 2 pcs, 40 mm round 2 pcs |
| Aux. Terminals : | Headphone Jack, 21 pin socket, S-VIDEO/AUDIO socket, A/V OUTPUT socket, External speaker terminal |
| Dimensions : | Height 481 mm <ul style="list-style-type: none"> Width 773 mm Depth 484 mm |
| Weight : | 26 kg |

Specifications are subject to change without notice.

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION" , "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. The E.H.T. must be checked every time the receiver is serviced to ensure that the C.R.T. does not emit X-ray radiation as result of excessive E.H.T. voltage. The nominal E.H.T. for this receiver is 27.5 kV at zero beam current (minimum brightness) operating at 220V a.c. The maximum E.H.T. voltage permissible in any operating circumstances must not exceed 29.0 kV. When checking the E.H.T., use the 'High Voltage Check' procedure in this manual using an accurate E.H.T. voltmeter.
2. The only source of X-RAY radiation in this receiver is the C.R.T. To prevent X-ray radiation, the replacement C.R.T. must be identical to the original fitted as specified in the Parts List.
3. Some components used in this receiver have safety related characteristics preventing the C.R.T. from emitting X-ray radiation.
For continued safety, replacement component should only be made after referring the Product Safety Notice below.

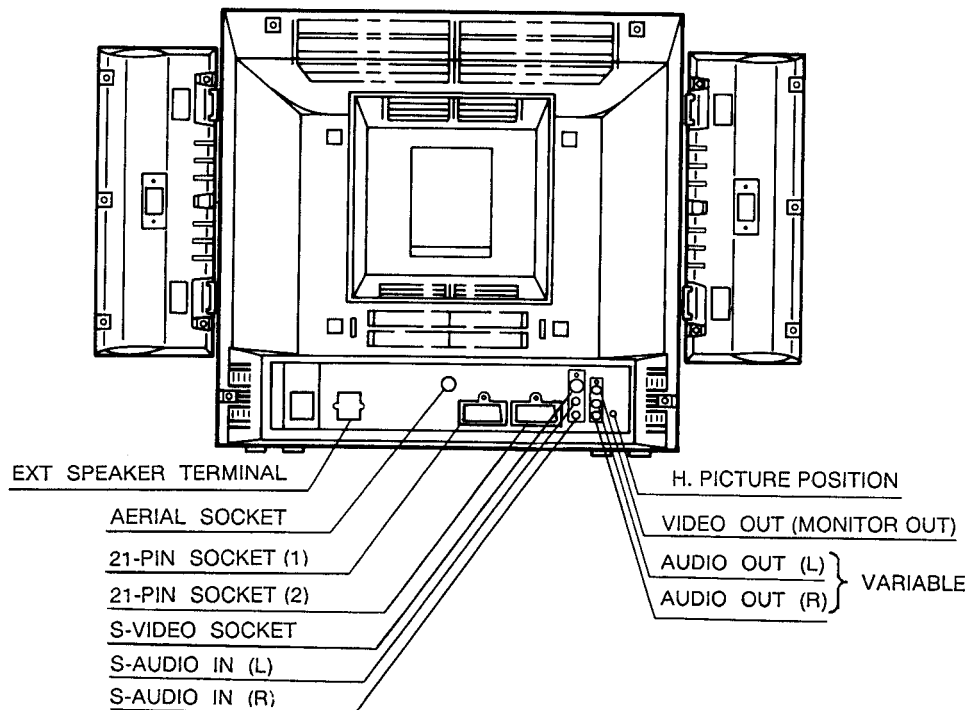
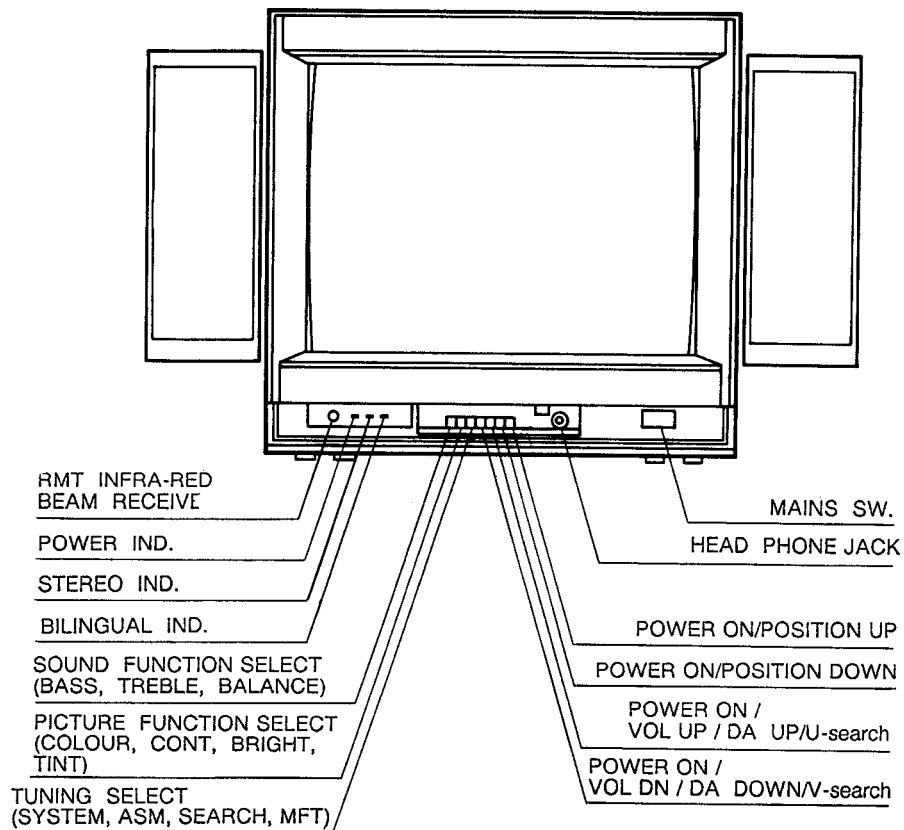
SAFETY PRECAUTION

1. This receiver has a nominal working E.H.T. voltage of 25.0 kV. Extreme caution should be exercised when working on the receiver with the back removed.
Do not attempt to service this receiver if you are not conversant with the precautions and procedures for working on high voltage equipment.
When handling or working on the C.R.T., always discharge the anode to the receiver chassis before removing the anode cap
The C.R.T., if broken, will violently expel glass fragments. Use shatter proof goggles and take extreme care while handling.
Do not hold the C.R.T. by the neck as this is a very dangerous practice.
2. It is essential that to maintain the safety of the customer all cable forms be replaced exactly as supplied from factory.
3. A small part of the chassis used in this receiver is, when operating, at approximately half mains potential at all times. It is therefore essential in the interest of safety that when serving or connecting any test equipment the receiver should be supplied via a suitable isolating transformer of adequate rating.
4. Replace blown fuses within the receiver with the fuse specified in the parts list.
5. When replacing wires or components to terminals or tags, wind the leads around the terminal before soldering. When replacing safety components identified by the international hazard symbols on the circuit diagram and parts list, it must be a Toshiba approved type and must be mounted as the original.
6. Keep wires away from high temperature components.

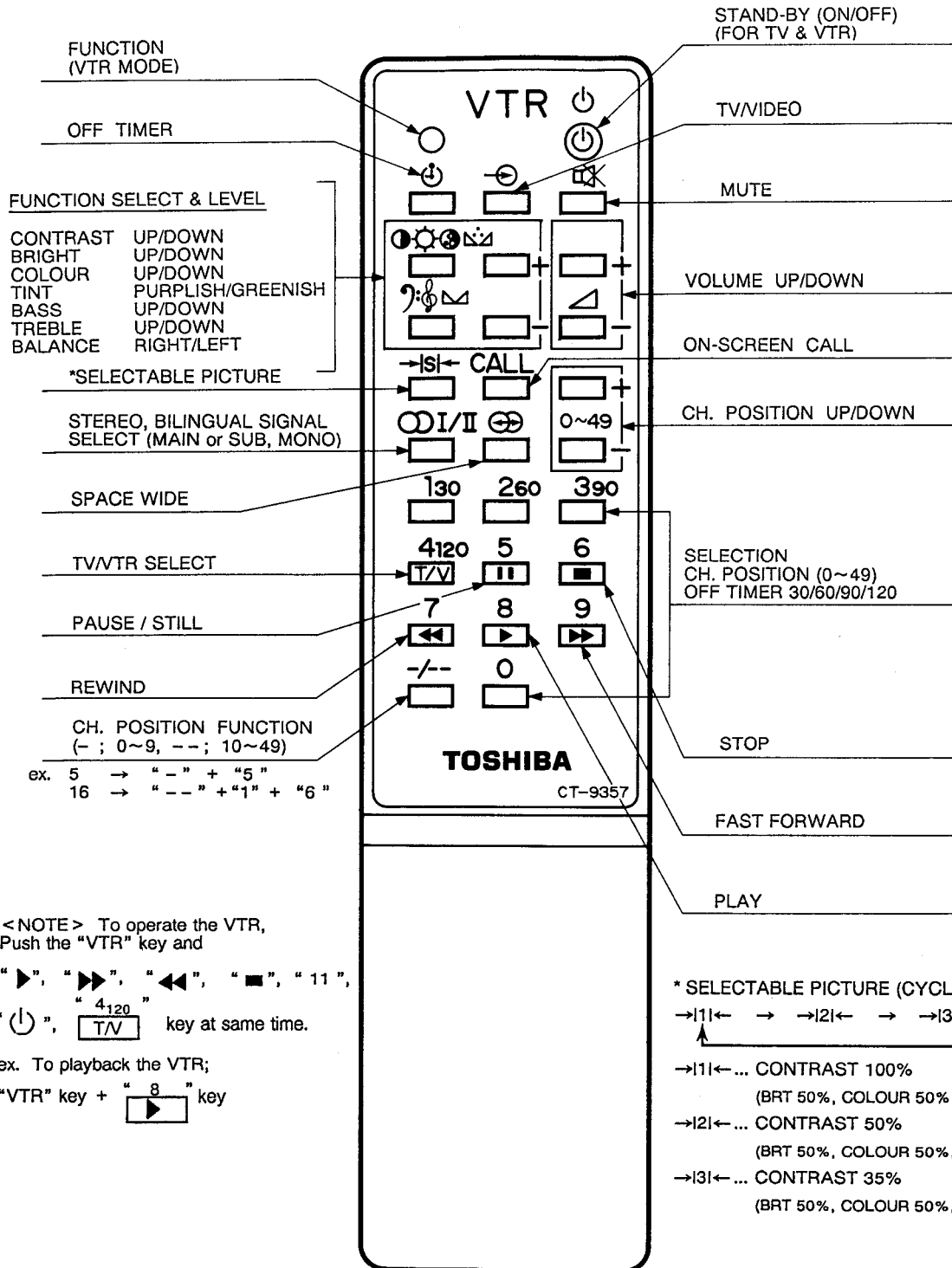
PRODUCT SAFETY NOTICE

Many electrical and mechanical components in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-ray radiation protection afforded by them cannot necessarily be obtained by using replacements rated at higher voltages or wattage, etc. Components which have these special safety characteristics in this manual and its supplements are identified by the international hazard symbols on the schematic diagram and parts list. Before replacing any of these components read the parts list in this manual carefully. Substitute replacement components which do not have the same safety characteristics as specified in the parts list may create X-ray radiation.

FRONT CONTROLS AND REAR VIEWS



REMOTE HAND HELD UNIT



WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

INSTALLATION AND SERVICE ADJUSTMENTS

GENERAL INFORMATION

All adjustments are thoroughly checked and corrected when the receiver leaves the factory. Therefore the receiver should operate normally and produce proper colour and B/W pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the receiver is operated.

This receiver is shipped completely in cardboard carton. Carefully draw out the receiver from the carton and remove all packing materials.

Plug the power cord into a convenient 220 volts 50 Hz AC two pin power outlet. Turn the receiver ON. Check and adjust all the customer controls such as BRIGHTNESS, CONTRAST and COLOUR Controls to obtain natural colour or B/W picture.

AUTOMATIC DEGAUSSING

A degaussing coil is mounted around the picture tube so that external degaussing after moving the receiver is normally unnecessary, providing the receiver is properly degaussed upon installation. The degaussing coil operates for about 1 second after the power to the receiver is switched ON. If the set is moved or faced in a different direction, the power switch must be switched off at least one hour in order that the automatic degaussing circuit operates properly. Should the chassis or parts of the cabinet become magnetized to cause poor colour purity, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube, the sides and front of the receiver and slowly withdraw the coil to a distance of about 2 m before disconnecting it from AC source. If colour shading still persists, perform the COLOUR PURITY ADJUSTMENT and CONVERGENCE ADJUSTMENTS procedures.

+ 120 VOLT POWER SUPPLY ADJUSTMENT (R851)

CAUTION: +B voltage closely relates to the high voltage. To prevent hazardous X-RAY RADIATION, the +B voltage must be properly adjusted to +120 volts.

1. Tune in an active channel. Adjust the BRIGHTNESS and CONTRAST Controls for normal picture.
2. Check that the AC power Line voltage is normal. (AC 220 volts, 50 Hz)
3. Connect a frequency counter to pin 3 and pin 4 (Ground) of Q807.
4. Adjust R852 for 20 kHz reading on the counter.
5. Remove the counter, and short R860 (connector side) to the ground.
6. Connect a digital voltmeter to both leads of C833.
7. Adjust R851 for 120V reading on the meter.
8. Remove the shorting on R860.

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST Controls to minimum (zero beam current).
3. High voltage will be measured below 29.0 kV.
4. Rotate the BRIGHTNESS Control to both extremes to be sure the high voltage does not exceed the limit of 29.0 kV under any conditions.

HEIGHT ADJUSTMENT

1. Receive the WG PHILIPS pattern, and set the contrast and colour to minimum, and the brightness to centre.
2. Change the VERT POSITION SW (S301) so the round shape in the pattern is located in the centre of screen.
3. HEIGHT Control (R351) changes the size of the picture or pattern, having an equal effect on the top and bottom. Make final adjustment to overscan the mask 2 cm at top and bottom.

HORIZONTAL CENTRE ADJUSTMENT

1. Receive the WG PHILIPS pattern.
2. Set the contrast and colour to minimum, and the brightness to centre.
3. Adjust H. CENTRE USER Control (R452) to the click (centre) position.
4. Adjust H. CENTRE SUB Control (R451) so the pattern centre can be located at the screen centre.

FOCUS ADJUSTMENT

Adjust FOCUS Control on FLYBACK TRANS.(T461) for well defined scanning lines in the centre area on the screen.

BELL COIL (LM01) ADJUSTMENT

1. Receive SECAM colour bar signal.
2. Connect the synchroscope to the terminal pin 2 of LM01.
3. Adjust LM01 for the flat level of amplitude in each colour bar waveform on the scope. (See figure 1.)

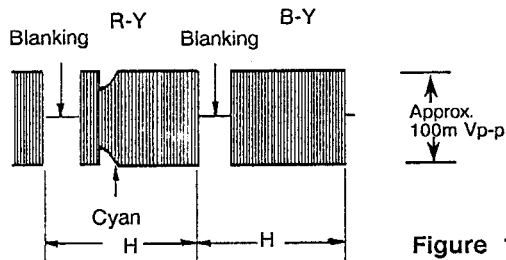


Figure 1.

IDENT COIL (LM04) ADJUSTMENT

1. Receive SECAM colour bar signal.
2. Connect the DC voltmeter (Digital Voltmeter) to the pin 23 of IC501.
3. Adjust LM04 for the maximum indication (approx. DC10V) on the meter.

B-Y, R-Y DEMOD COIL (LM02, LM03) ADJUSTMENT

1. Receive SECAM colour bar signal.
2. Set the COLOUR, BRIGHTNESS and CONTRAST Controls free.
3. Connect the synchroscope to the pin 62 of IC501.
4. Adjust LM02 so that the white level in picture part reaches to the vertical retrace line. (See figure 2.)
5. Then change the connection of synchroscope from the pin 62 to the pin 60 of IC501.
6. Adjust LM03 so that the white level in picture part reaches to the vertical retrace line. (See figure 3.)

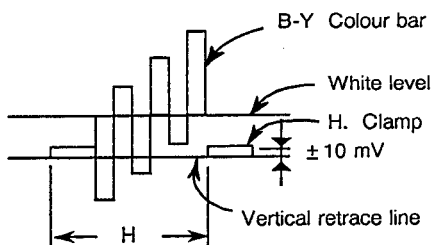


Figure 2.

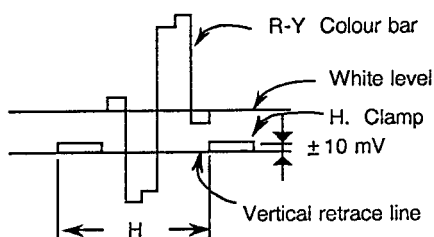


Figure 3.

PAL MATRIX ADJUSTMENT

1. Tune in the colour programme of the Philips pattern.
2. Set the COLOUR Control to obtain the proper colour.
3. If the PAL MATRIX adjustment is incorrect, the Venetian Blind would appear in the colour bars area. This case needs the adjustment.
4. At the first, adjust DL PHASE ADJ. Coil (L551) to minimize the Venetian Blind.
5. Next adjust 1H-DL ADJ. VR (R551) to minimize the Blind.
6. If the Venetian Blind still remains, adjust 1H-DL PHASE ADJ. Coil (L551) to minimize the Blind again.
7. Repeat the item 5 and 6 procedures, adjust the R551 and L551 until the Blind does not appear.

CRT GREY SCALE ADJUSTMENT

1. Tune in an active channel.
2. Turn the SCREEN Control (on T461) fully counter-clockwise.
3. By rotating the RED, GREEN and BLUE CUT OFF Controls (R557, R558, R559) to the mid position.
4. Set the GREEN and BLUE DRIVE Controls (R252, R253) to the 90 degree position from the max position rotating counterclockwise.
5. Set the SERVICE SW. (S202) in the H. line position.
6. Set the CONTRAST, COLOUR Controls to minimum and BRIGHTNESS Control to centre position.
7. Rotate the SCREEN Control gradually clockwise until the first line appears slightly on the screen. Set the SCREEN Control to this position.
8. Adjust the CUT OFF Controls to obtain the slightly lighted horizontal lines in the same levels of three colours (RED, GREEN and BLUE). The lines may look like white if the CUT OFF Controls are adjusted properly.
9. Return the SERVICE SW. (S202) in the receiving position.
10. Set the BRIGHTNESS Control to the maximum and COLOUR Control to the minimum.
11. Adjust the BLUE and GREEN DRIVE Controls (R252/R253) to obtain proper white-balanced picture in high light areas.
12. Set the BRIGHTNESS and CONTRAST Controls to obtain dark grey raster. Then check the white balance in low brightness. If the white balance is not proper, retouch the CUT OFF Controls and DRIVE Controls to obtain a good white balance in both low and high light areas.

SUB-BRIGHTNESS ADJUSTMENT

1. Tune in a colour programme.
2. Set the CONTRAST Control to the maximum and the BRIGHTNESS Control to the centre.
3. Set the COLOUR Control to the minimum.
4. Set the SUB-BRIGHT. Control (R255) to the centre and leave the receiver for five minutes in this state.
5. Watching the picture well, adjust the SUB-BRIGHT. Control in the position where the picture does not show evidence of blooming in high bright area and not appear too dark in low bright portion.
6. Check the proper picture variation by rotating the CONTRAST and BRIGHTNESS Controls to both extremes.
7. If the picture does not appear dark with the CONTRAST and BRIGHTNESS Controls turned to the minimum, or not appear bright with the controls turned to the maximum, adjust the SUB-BRIGHT. Control again for the acceptable picture.

PICTURE I-F SWEEP ALIGNMENT

GENERAL..... Refer to figure 4 for test equipment connection.

PRELIMINARY STEPS 1. Supply +12 volts to the Main Board.
2. Short the pin 1 of IC101 to ground.

SWEEP/MARKER GENERATOR..... Connect to the point ④ as shown in figure 4 on the Main Board.
Set to 30 ~ 40 MHz sweep with signal level of 75 ~ 85 dB μ .

OSCILLOSCOPE..... Connect to pin 1 IC101 on the Main Board through the detector.

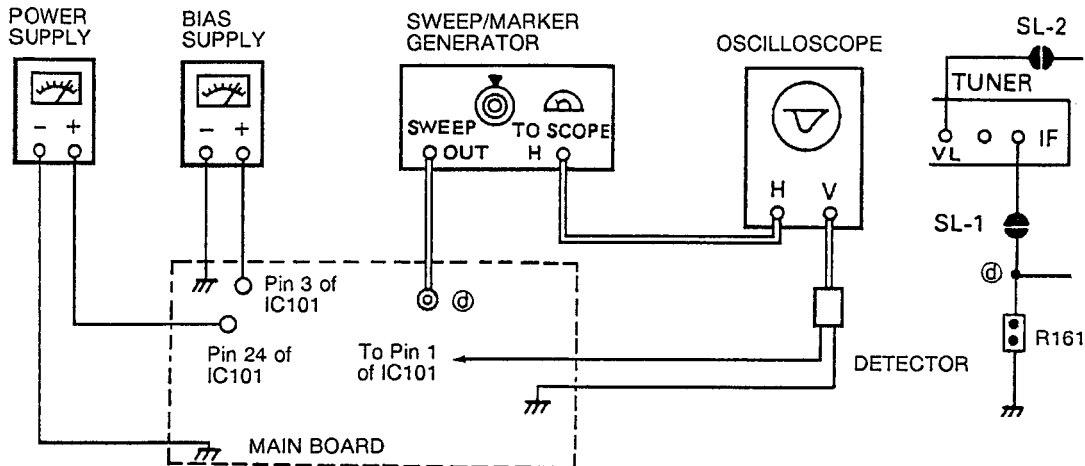


Figure 4. Picture IF Sweep Alignment

| STEP | SWEEP/MARGER GENERATOR | ADJUST | REMARKS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Detector Coil | 37.4 MHz Marker "ON" | L151 | <ul style="list-style-type: none"> Short the collector of QN08 on the Main Board to ground. Supply +2 to +3 volts to pin 3 of IC101 to set the output level for 0.4 Vp-p on the scope. Adjust L151 so that the marker position (37.4 MHz) on the response can lower to minimum. (See figure 5.) Remove the short of the collector of QN08. After completing CN51 adjustment, repeat this step again. |
| 2. Detector Capacitor | 32.7 MHz Marker "ON" | CN51 | <ul style="list-style-type: none"> Short the base of QN08 to ground. Supply +2 to +3 volts to pin 3 of IC101 to set the detection output for 0.4 Vp-p on the scope. Adjust CN51 so that the marker position (32.7 MHz) on the response can lower to minimum. (See figure 5.) Remove the short of base of QN08. After completing L151 adjustment, repeat the step again. |
| After completing the above steps, disconnect the equipment and re-solder the links on the Main Board, and adjust the AGC Delay control (R151) following DELAYED RF AGC ADJUSTMENTS. | | | |



Figure 5. Magnified Response Curve

AFC ALIGNMENT

- GENERAL Refer to figure 6 for test equipment connection.
- PRELIMINARY STEPS 1. Disconnect the solder links on the foil side of the Main Board.
 2. Supply +12 volts to the Main Board. (See figure 6.)
 3. Short the pin 29 to ground.
 4. Turn AGC DELAY Control (R153) on the Main Board fully clockwise.
- DVM..... Connect to the resistor R125 (© in figure 6) and ground.

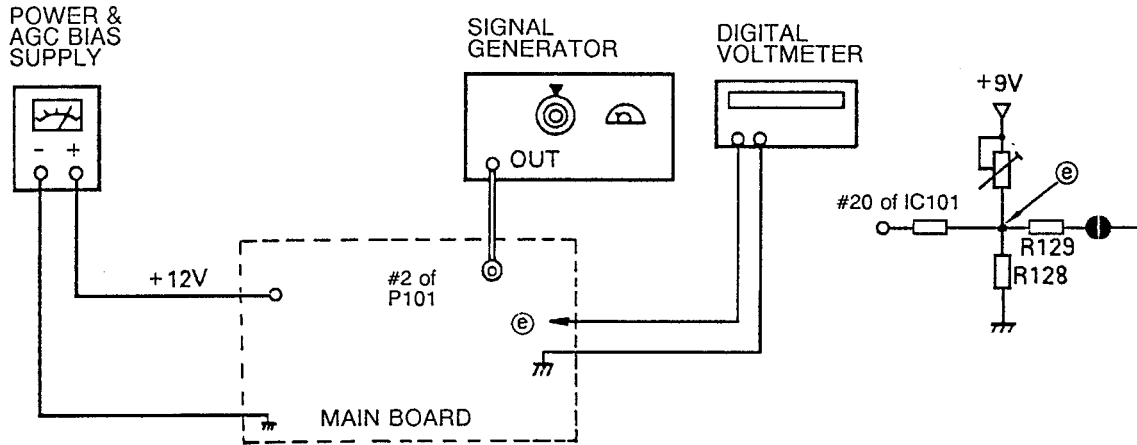


Figure 6. AFC Alignment

| STEP | SIGNAL GENERATOR | ADJUST | REMARKS |
|-------------------------|-------------------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. AFC Balance (R153) | NO SIGNAL | R153 | <ul style="list-style-type: none"> Short the pin 3 of IC101 to ground. Adjust R153 for 4.5 volts at the point © in figure 6. |
| 2. AFC Coil (L152) | 37.4 MHz CARRIER WAVE (Level : 75 to 85 dBμ) | L152 | <ul style="list-style-type: none"> Remove the short of pin 3 of IC101. Short the collector of QN08 to ground. Connect IF carrier wave to the pin 2 of P101 in figure 6. Adjust L152 for 5.4 volts on the meter at the point ©. After completing L153 adjustment, repeat this step again. |
| 3. AFC Capacitor (L153) | 32.7 MHz CARRIER WAVE (Level : 75 to 85 dBμ) | L153 | <ul style="list-style-type: none"> Remove the short of collector of QN08. Connect IF carrier wave to the pin 2 of P101 in figure 6. Adjust L153 for 5.4 volts on the meter at the point ©. After completing L152 adjustment repeat this step again. |

SECAM DET-OUT & SOUND IF ALIGNMENT

L SECAM DET-OUT (R152) ADJUSTMENT

1. Unsolder the solder link SL-1 to disconnect.
2. Supply +12 V to the Main Board.
3. Short the base of QN12 to ground, and the base of QN08 to ground.
4. Set AGC to Self AGC condition. (Pin 3 of IC101)
5. Connect synchroscope to the emitter of Q103 through 10:1 probe.
6. Connect the 2-signal generator to IF input, and set up the generator as described below.
 - IF frequency : 32.7 MHz
 - Signal level : 75 to 85 dB μ
 - Video modulation
 - Positive modulation : 97%
 - Video signal fH : 15.625 kHz
 - Picture : Pattern with 100% white
7. Adjust the AC LEVEL Control (R152) for 2.0Vp-p on the scope.

SIF CONVERTER (L662) ADJUSTMENT

1. Short pin 7 of IC601 to ground.
2. Connect SIF generator to the base of Q660 through 0.01 μ F capacitor.
3. Connect the oscilloscope to the output side of Z666.
4. Set up the SIF generator as described below.
 - Sound carrier frequency : 5.5 MHz
 - Modulation frequency : 1000 Hz
 - Frequency deviation : ± 15 kHz
 - Signal level : 100 dB μ (50 ohm load)
5. Adjust L662 for the maximum response on scope.

MPX ALIGNMENT

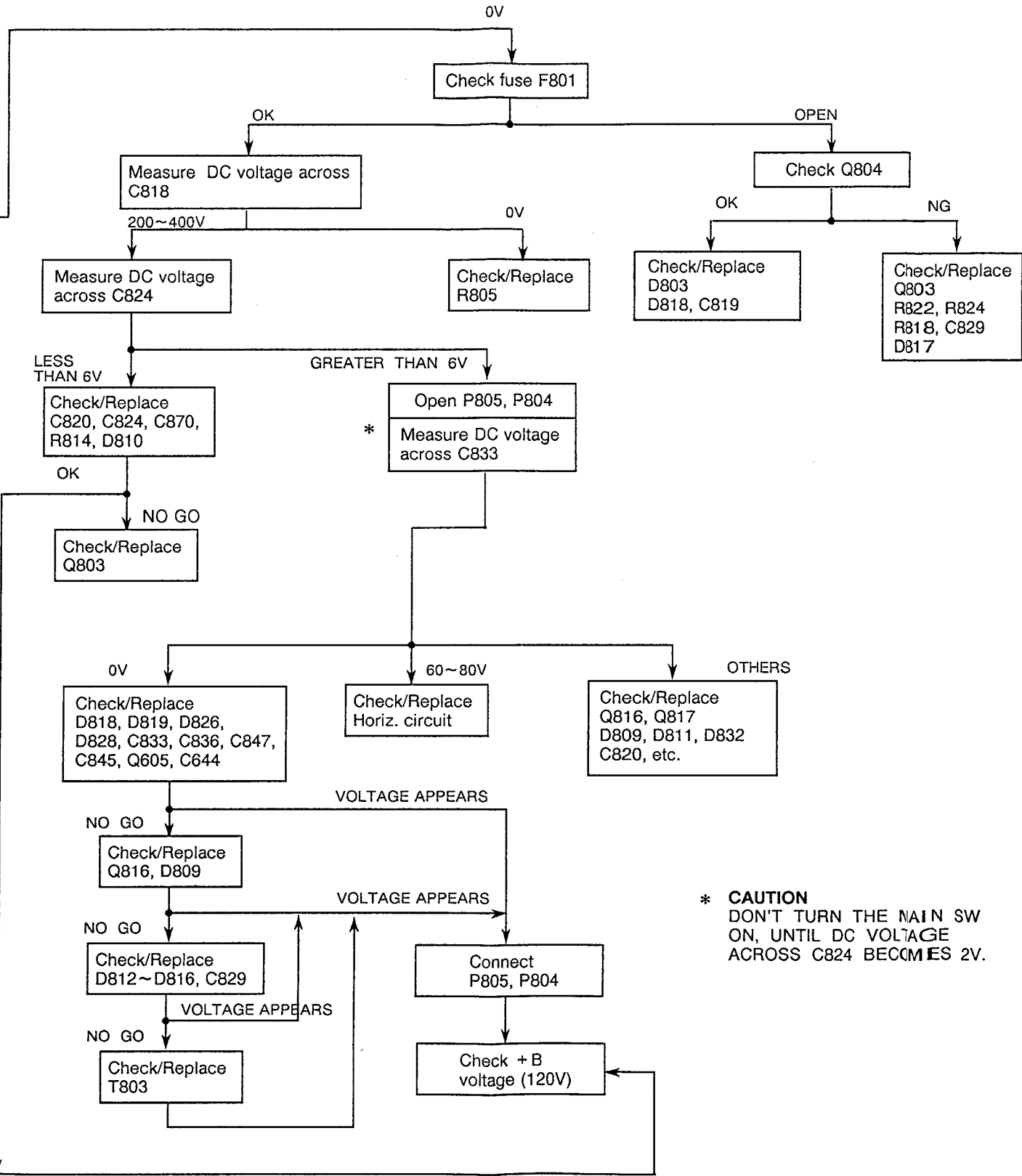
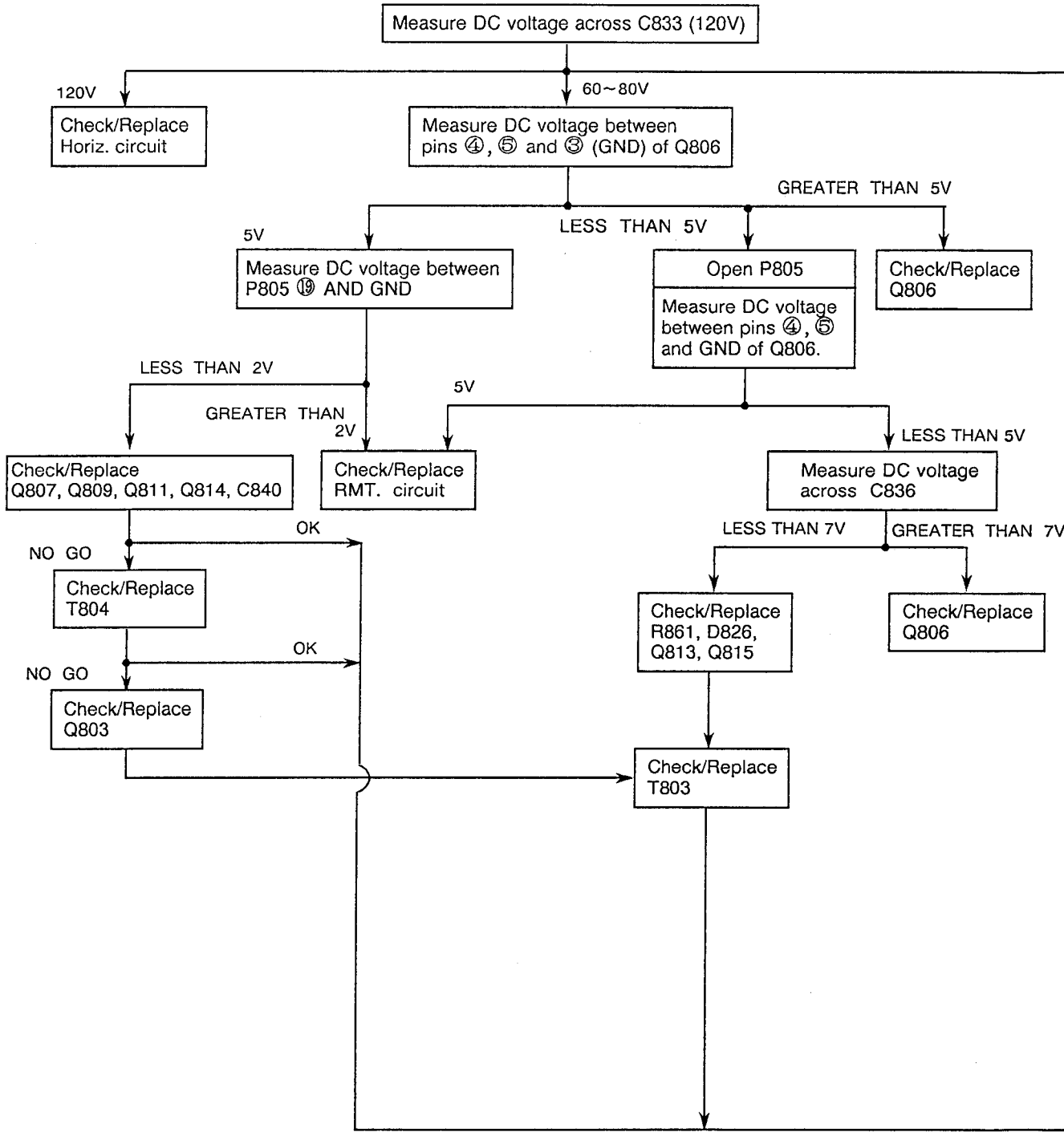
| STEP | ADJUSTING PARTS | INPUT TERMINAL | OUTPUT TERMINAL | TEST SIGNAL | PROCEDURE |
|------|----------------------------|----------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 54.7 kHz PILOT ADJ. (LG01) | PIN 21 (QG01) | Pin 19 (QG01) | Pilot Signal Input level: 100mVp-p f = 54.69 kHz | <ol style="list-style-type: none"> 1. Arrange the signal as described left. 2. Connect oscilloscope to pin 19 of ICG01. 3. Adjust LG01 for the maximum amplitude of 54.69 kHz element. |
| 2 | STEREO SEPARATION (RG51) | Aerial | PIN 2 (ICG01) | ON AIR SIGNAL S1: fm = 1 kHz $\Delta f = \pm 15$ kHz S2: fm = 1 kHz $\Delta f = \pm 30$ kHz LEFT CH.: No modulation INPUT LEVEL: 80 to 100dB μ | <ol style="list-style-type: none"> 1. Receive ON-AIR stereo signal. 2. Connect oscilloscope to pin 2 of QG01. 3. Adjust RG51 for the minimum amplitude of 1 kHz element |

**THIS PAGE IS
INTENTIONALLY LEFT
BLANK**

TROUBLESHOOTING CHARTS

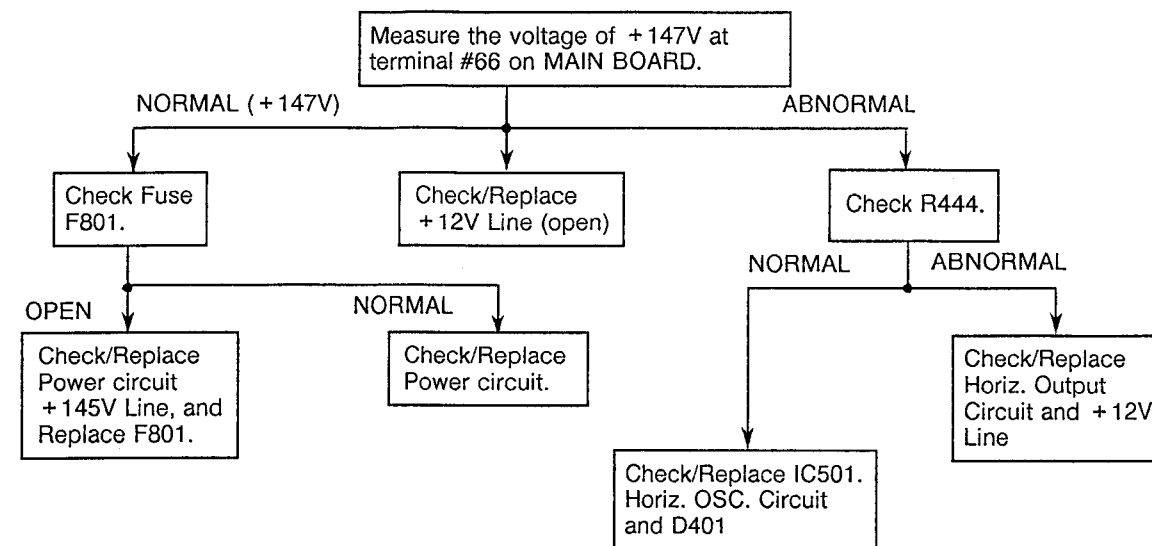
The following charts are devoted to troubleshooting which, if followed carefully, will assist you in tracking down a fault to the correct stage.
 In order to utilize the charts (fault trees), firstly establish the complaint, i.e. – No Raster, No Sound.
 Locate the chart applicable and then progress through the various alternatives until a final block indicates the offending components or stage.

1. NO RASTER AND NO SOUND

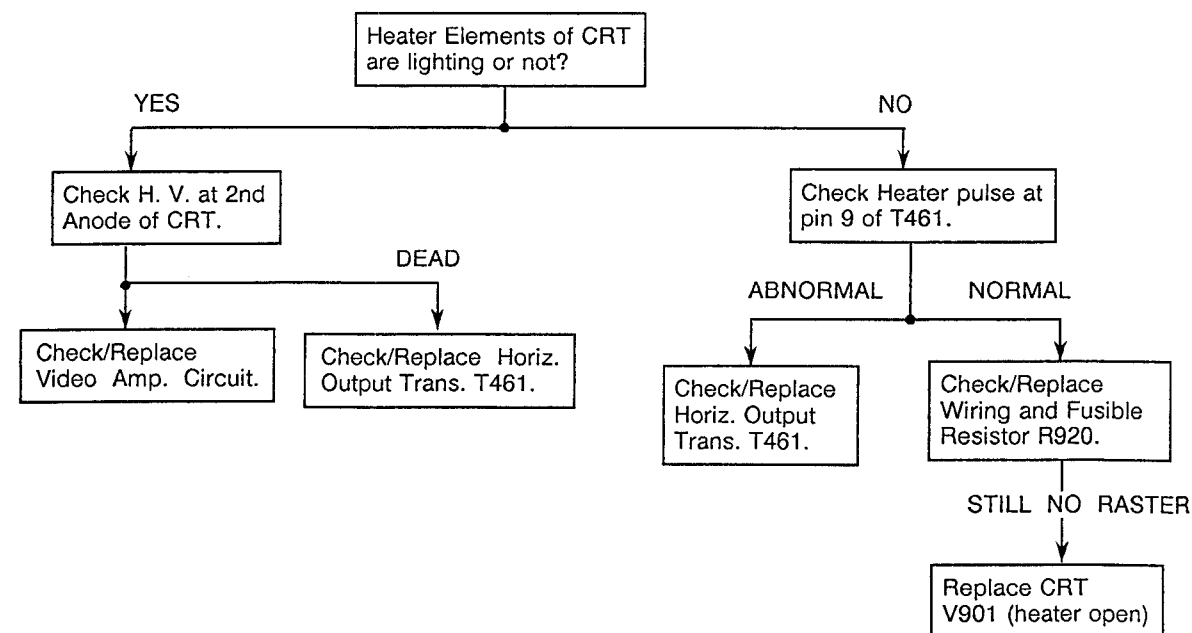


* CAUTION
 DON'T TURN THE MAIN SW ON, UNTIL DC VOLTAGE ACROSS C824 BECOMES 2V.

2. NO RASTER (NOISE OR WEAK SOUND)

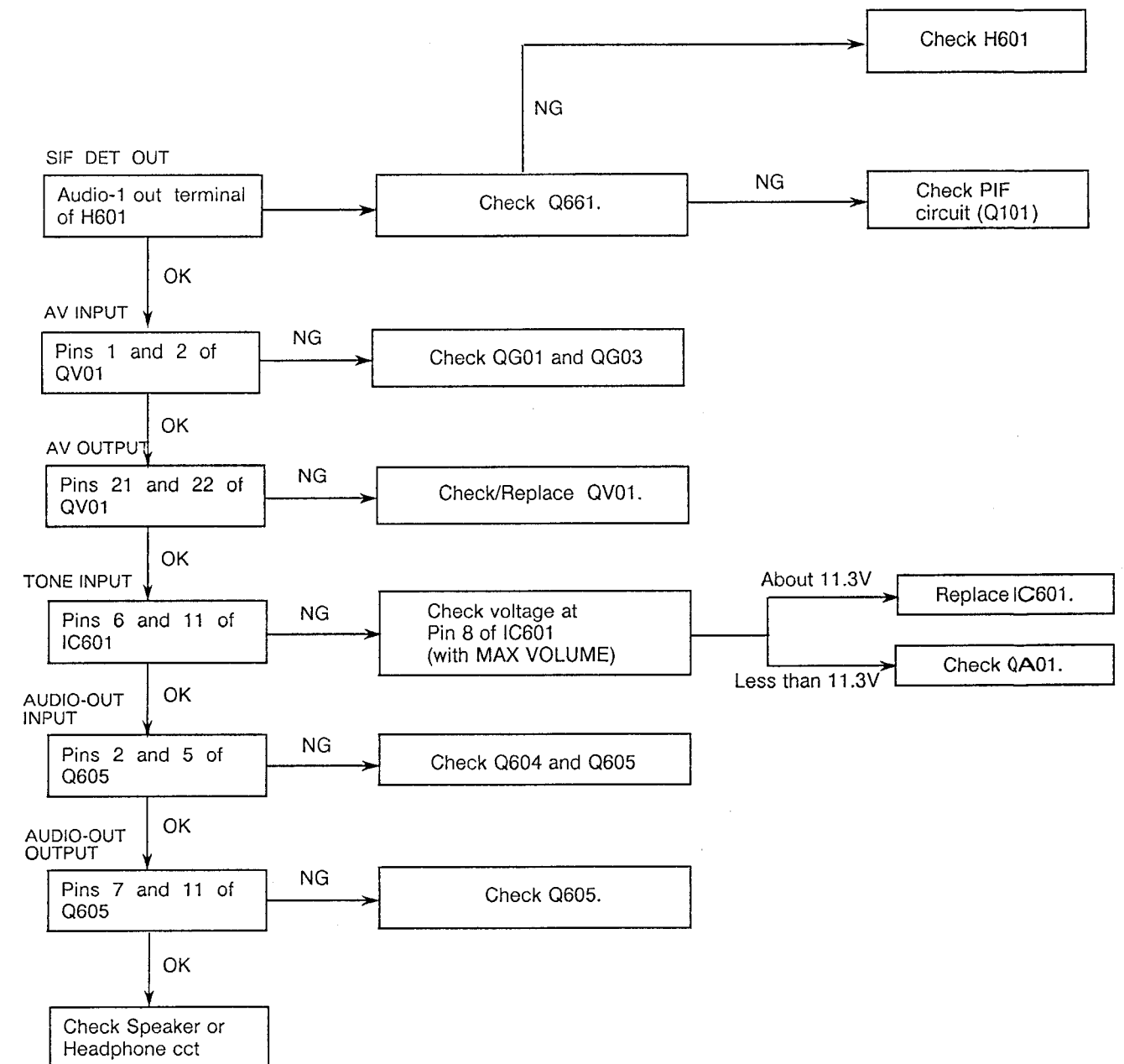


3. NO RASTER (SOUND OK)



4. NO SOUND

Note: Check the sound signal waveform for shaded area below.



5. NO PICTURE

Check video signal waveform for shaded area below.

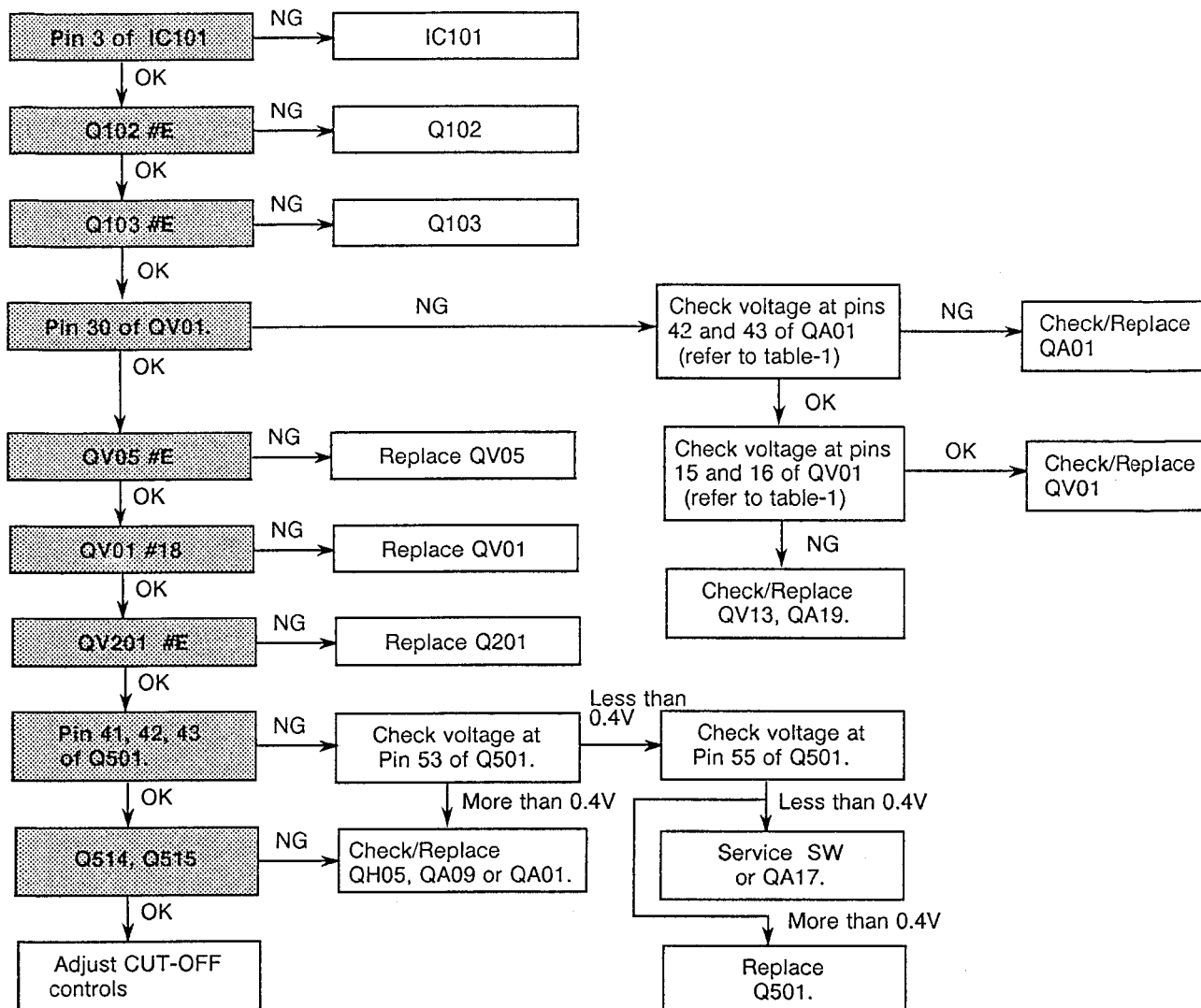


Table-1 (A/V SW. LOGIC)

| MODE | QA01 | | QV01 | |
|---------|--------|--------|--------|--------|
| | Pin 43 | Pin 42 | Pin 15 | Pin 16 |
| TV | *H | *H | *H | *H |
| VIDEO-1 | H | L | H | L |
| VIDEO-2 | L | L | L | L |
| VIDEO-3 | L | H | L | H |

L : Less than 2.5V
H : More than 2.5V

Note: * marks denote as follows.

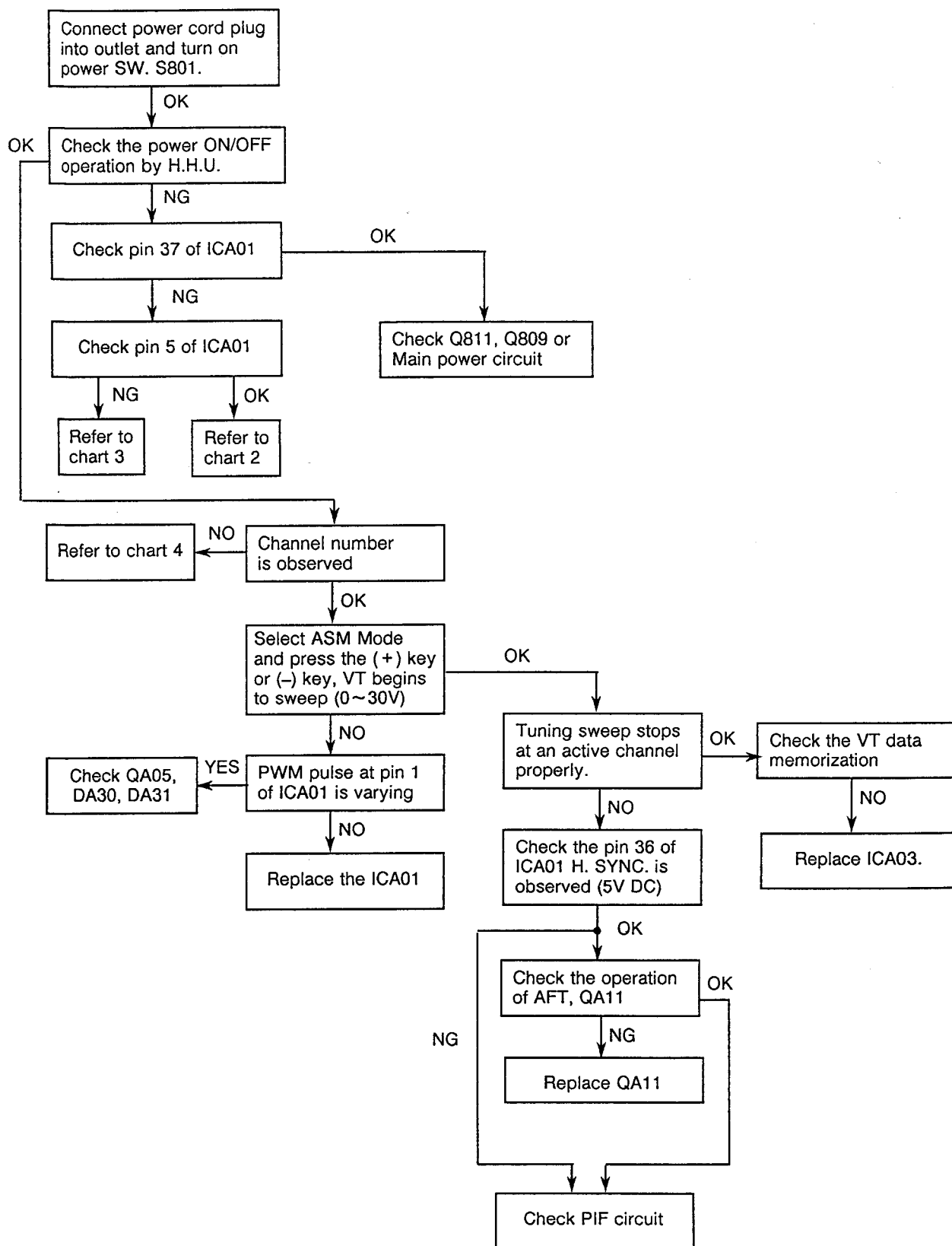
AV SW LOGIC is same as VIDEO-1 mode when pin 8 of 21 PIN-1 is high level.

AV SW LOGIC is same as VIDEO-2 mode when pin 8 of 21 PIN-1 is high level.

AV SW LOGIC is same as VIDEO-1 mode when pin 8 of 21 PIN-1 and 21 PIN-2 are high level.

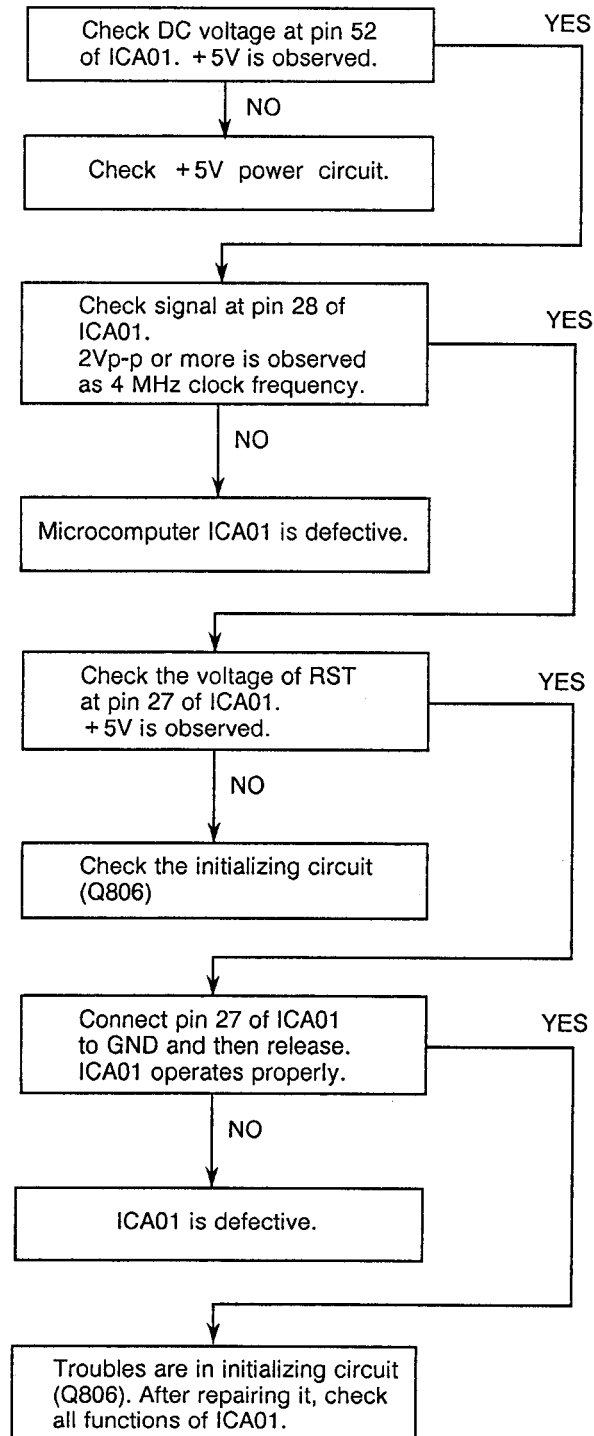
6. CHANNEL SELECTOR TROUBLE

[CHART 1]



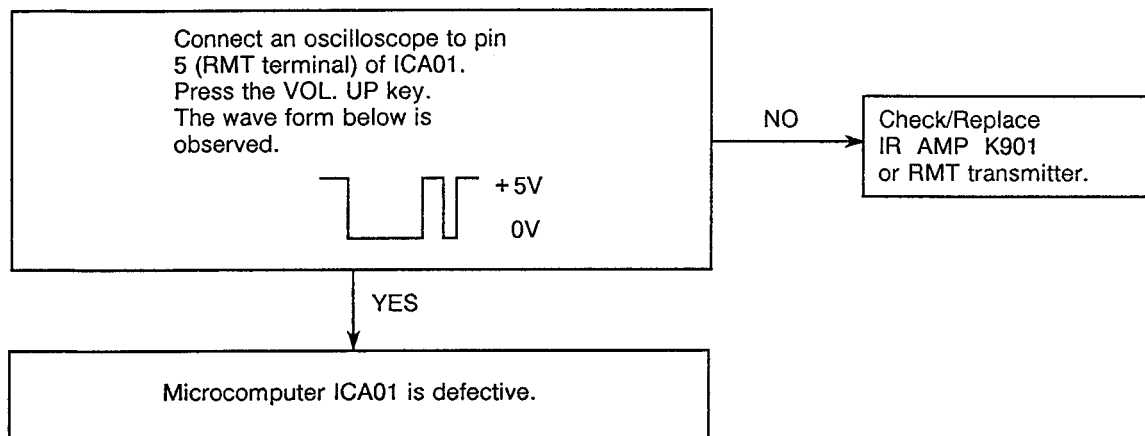
[CHART 2] Microcomputer (ICA01) Operation Check

NOTE: Before checking Microcomputer, check that control buttons and their connection work properly.

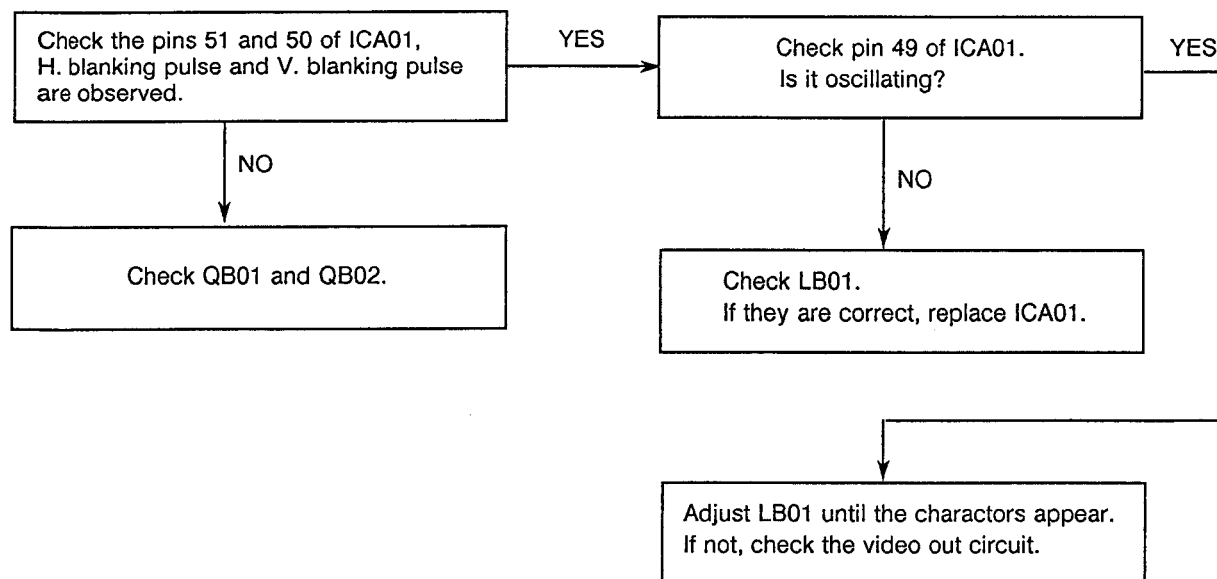


[CHART 3] Remote Control Operation Check

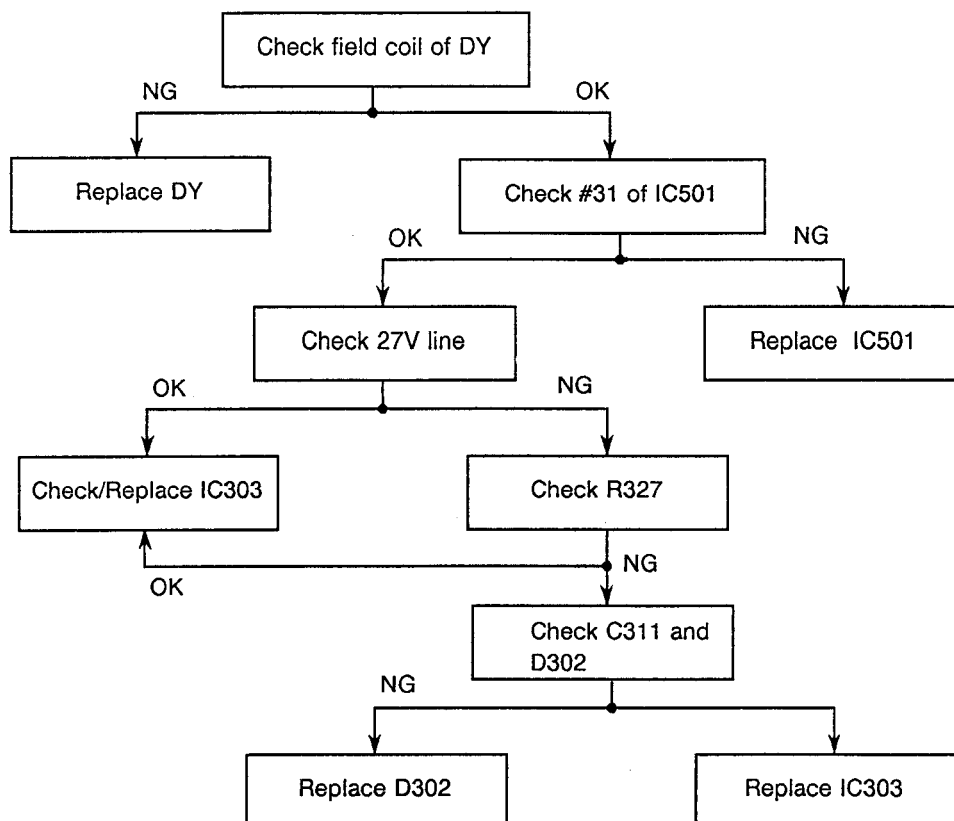
Note : Before checking RMT operation, check that key operation on TV set is proper.



[CHART 4] On Screen Display Operation Check



7. NO VERT. SCAN (ONE HORIZ. LINE RASTER)



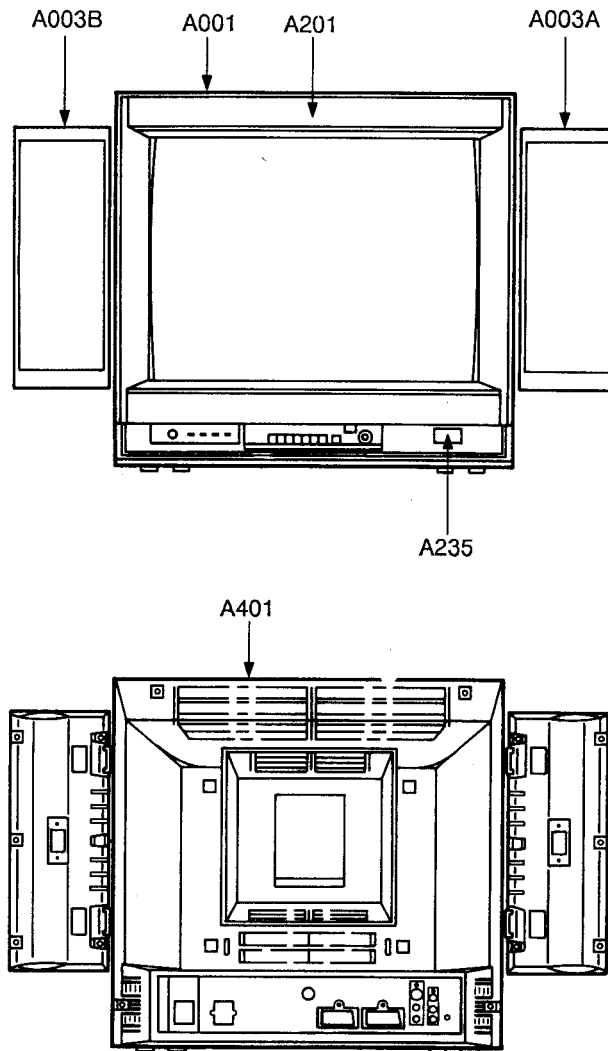
8. OUT OF VERT. SYNC. AND HORIZ. SYNC.

Check/Replace Sync Circuit pin 33 of IC501.

9. OUT OF HORIZ. SYNC.

Check/Replace Horiz. OSC Circuit and Horiz. AFC Circuit connected to Pins 36, 37 and 38 of IC501.
Check/Replace IC501.

CABINET REPLACEMENT PARTS LIST



| Location No. | Part No. | Description |
|--------------|----------|---------------------|
| A001 | 23887270 | Wood Cabinet |
| A003A | 23418211 | Speaker Box(R) |
| A003B | 23418213 | Speaker Box(L) |
| A130 | 23805390 | Foot |
| A201 | 23418274 | Front Panel |
| A232 | 23838213 | Control Trim |
| A235 | 23443315 | Button, POWER |
| A238 | 70368125 | Push Catch for Door |
| A301A | 23418212 | Speaker Box, FRT |
| A301B | 23418212 | Speaker Box, FRT |
| A302A | 23415209 | Speaker Box, Back |
| A302B | 23415209 | Speaker Box, Back |

| Location No. | Part No. | Description |
|--------------|----------|-----------------------|
| A303A | 23161703 | Terminal, 2P |
| A303B | 23161703 | Terminal, 2P |
| A306A | 23523227 | Case, Speaker Box |
| A306B | 23523227 | Case, Speaker Box |
| A401 | 23422923 | Back Cover |
| A411 | 23998361 | Label, Model No., B/C |
| A422 | 23838236 | Trim |
| A431 | 23030871 | Screw for Speaker |
| A701 | 23523296 | Carton Box |
| A702 | 23934473 | Packing, Bottom |
| A703 | 23934474 | Packing, Top |
| Y101 | 23994635 | Owner's Manual |

CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

CAUTION: The international hazard symbols in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

NOTICE: The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.

ABBREVIATIONS:

| | | | |
|--------------------|--------------------|-------------------------|-----------------------|
| Capacitors..... CD | : Ceramic Disk | PF : Plastic Film | EL : Electrolytic |
| Resistors..... CF | : Carbon Film | CC : Carbon Composition | MF : Metal Film |
| OMF | : Oxide Metal Film | VR : Variable Resistor | FR : Fusible Resistor |

(All CD and PF capacitors are $\pm 5\%$, 50V and all resistors, $\pm 5\%$, 1/6W unless otherwise noted.)

| Location No. | Part No. | Description |
|-------------------|----------|--------------------------------------------|
| CAPACITORS | | |
| C101 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C102 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C103 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C104 | 24636220 | EL, 22 μ F, 50V |
| C105 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C106 | 24636229 | EL, 2.2 μ F, 50V |
| C107 | 24550473 | PF, 0.047 μ F, 63V |
| C108 | 24707474 | Tantalum, 0.47 μ F, $\pm 20\%$, 35V |
| C109 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C110 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C111 | 24636229 | EL, 2.2 μ F, 50V |
| C112 | 24436560 | CD, 56pF |
| C113 | 24636478 | EL, 0.47 μ F, 50V |
| C114 | 24633470 | EL, 47 μ F, 50V |
| C115 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C116 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C117 | 24085029 | EL, 4.7 μ F, 16V, Non-Polar |
| C119 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C120 | 24212222 | CD, 2200pF, $\pm 10\%$ |
| C121 | 24085988 | EL, 1 μ F, $\pm 20\%$, 50V, Non-Polar |
| C122 | 24550153 | PF, 0.015 μ F, 63V |
| C123 | 24636478 | EL, 0.47 μ F, 50V |
| C124 | 24794101 | EL, 100 μ F, 16V |
| C125 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C126 | 24212152 | CD, 1500pF, $\pm 10\%$ |
| C128 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C161 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C162 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C163 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C164 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C165 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C166 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C167 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C168 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C169 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C170 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C171 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C201 | 24636100 | EL, 10 μ F, 50V |

| Location No. | Part No. | Description |
|--------------|----------|-------------------------------------|
| C202 | 24795101 | EL, 100 μ F, 25V |
| C203 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C204 | 24797220 | EL, 22 μ F, 50V |
| C205 | 24636478 | EL, 0.47 μ F, 50V |
| C207 | 24633220 | EL, 22 μ F, 16V |
| C208 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C209 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C210 | 24636100 | EL, 10 μ F, 50V |
| C240 | 24530474 | PF, 0.47 μ F, $\pm 10\%$, 63V |
| C301 | 24636229 | EL, 2.2 μ F, 50V |
| C302 | 24212152 | CD, 1500pF, $\pm 10\%$ |
| C303 | 24617912 | EL, 2.2 μ F, $\pm 10\%$, 50V |
| C304 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C307 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C311 | 24796102 | EL, 1000 μ F, 35V |
| C313 | 24796101 | EL, 100 μ F, 35V |
| C315 | 24214221 | CD, 220pF, $\pm 10\%$, 500V |
| C316 | 24795332 | EL, 3300 μ F, 25V |
| C317 | 24617981 | EL, 2.2 μ F, $\pm 10\%$, 50V |
| C318 | 24214332 | CD, 3300pF, $\pm 10\%$, 500V |
| C320 | 24693104 | PF, 0.1 μ F, 100V |
| C321 | 24214391 | CD, 390pF, $\pm 10\%$, 500V |
| C322 | 24530153 | PF, 0.015 μ F, $\pm 10\%$, 63V |
| C330 | 24794471 | EL, 470 μ F, 16V |
| C360 | 24530224 | PF, 0.22 μ F, $\pm 10\%$, 63V |
| C402 | 24353271 | CD, 270pF |
| C403 | 24636339 | EL, 3.3 μ F, 50V |
| C405 | 24593203 | PF, 0.02 μ F |
| C406 | 24593203 | PF, 0.02 μ F |
| C407 | 24593243 | PF, 0.024 μ F |
| C408 | 24617929 | EL, 18 μ F, $\pm 20\%$, 50V |
| C409 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C410 | 24693272 | PF, 2700pF, 100V |
| C412 | 24550182 | PF, 1800pF, 63V |
| C413 | 24550182 | PF, 1800pF, 63V |
| C416 | 24214271 | CD, 270pF, $\pm 10\%$, 500V |
| C423 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C424 | 24795470 | EL, 47 μ F, 25V |
| C425 | 24794101 | EL, 100 μ F, 16V |
| △ C440 | 24095636 | PF, 7200pF, $\pm 3\%$, 1600V |
| C441 | 24214221 | CD, 220pF, $\pm 10\%$, 500V |

| Location No. | Part No. | Description |
|--------------|----------|--------------------------------------|
| C442 | 24095949 | PF, 0.33 μ F, 200V |
| C443 | 24214221 | CD, 220pF, $\pm 10\%$, 500V |
| C445 | 24095903 | PF, 0.056 μ F, $\pm 10\%$, 250V |
| △ C446 | 24214102 | CD, 1000pF, $\pm 10\%$, 500V |
| C447 | 24644479 | EL, 4.7 μ F, 250V |
| C448 | 24795222 | EL, 2200 μ F, 25V |
| C449 | 24794471 | EL, 470 μ F, 16V |
| C451 | 24640908 | EL, 33 μ F, $\pm 20\%$, 160V |
| △ C463 | 24212222 | CD, 2200pF, $\pm 10\%$ |
| C501 | 24797220 | EL, 22 μ F, 50V |
| C502 | 24636100 | EL, 10 μ F, 50V |
| C503 | 24436101 | CD, 100pF |
| C504 | 24436101 | CD, 100pF |
| C505 | 24593273 | PF, 0.027 μ F |
| C506 | 24593273 | PF, 0.027 μ F |
| C507 | 24593103 | PF, 0.01 μ F |
| C508 | 24085028 | EL, 2.2 μ F, 25V, Non-Polar |
| C509 | 24353330 | CD, 33pF |
| C510 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C511 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C512 | 24353200 | CD, 20pF |
| C515 | 24797220 | EL, 22 μ F, 50V |
| C516 | 24550104 | PF, 0.1 μ F, 63V |
| C517 | 24550104 | PF, 0.1 μ F, 63V |
| C518 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C519 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C520 | 24636478 | EL, 0.47 μ F, 50V |
| C521 | 24550474 | PF, 0.47 μ F, 63V |
| C522 | 24550474 | PF, 0.47 μ F, 63V |
| C523 | 24550474 | PF, 0.47 μ F, 63V |
| C524 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C525 | 24436820 | CD, 82pF |
| C526 | 24436820 | CD, 82pF |
| C527 | 24436820 | CD, 82pF |
| C530 | 24796220 | EL, 22 μ F, 35V |
| C531 | 24633100 | EL, 10 μ F, 16V |
| C532 | 24436820 | CD, 82pF |
| C533 | 24436820 | CD, 82pF |
| C534 | 24436820 | CD, 82pF |
| C535 | 24636100 | EL, 10 μ F, 50V |
| C536 | 24636478 | EL, 0.47 μ F, 50V |
| C537 | 24794101 | EL, 100 μ F, 16V |
| C540 | 24436391 | CD, 390pF |
| C541 | 24436391 | CD, 390pF |
| C542 | 24436391 | CD, 390pF |
| C601 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C612 | 24636100 | EL, 10 μ F, 50V |
| C613 | 24636100 | EL, 10 μ F, 50V |
| C614 | 24633220 | EL, 22 μ F, 16V |
| C615 | 24636479 | EL, 4.7 μ F, 50V |
| C616 | 24636229 | EL, 2.2 μ F, 50V |
| C617 | 24636479 | EL, 4.7 μ F, 50V |
| C618 | 24636479 | EL, 4.7 μ F, 50V |
| C619 | 24794470 | EL, 47 μ F, 16V |
| C620 | 24530103 | PF, 0.01 μ F, $\pm 10\%$, 63V |
| C621 | 24550563 | PF, 0.056 μ F, 63V |
| C622 | 24530103 | PF, 0.01 μ F, $\pm 10\%$, 63V |
| C623 | 24550563 | PF, 0.056 μ F, 63V |
| C624 | 24797220 | EL, 22 μ F, 50V |
| C625 | 24794470 | EL, 47 μ F, 16V |
| C626 | 24636479 | EL, 4.7 μ F, 50V |
| C627 | 24636479 | EL, 4.7 μ F, 50V |
| C628 | 24530222 | PF, 2200pF, $\pm 10\%$, 63V |

| Location No. | Part No. | Description |
|--------------|----------|--------------------------------------|
| C629 | 24530222 | PF, 2200pF, $\pm 10\%$, 63V |
| C633 | 24530104 | PF, 0.1 μ F, $\pm 10\%$, 63V |
| C634 | 24530123 | PF, 0.012 μ F, $\pm 10\%$, 63V |
| C635 | 24794101 | EL, 100 μ F, 16V |
| C636 | 24636478 | EL, 0.47 μ F, 50V |
| C637 | 24795101 | EL, 100 μ F, 25V |
| C638 | 24636478 | EL, 0.47 μ F, 50V |
| C640 | 24530184 | PF, 0.18 μ F, $\pm 10\%$, 63V |
| C641 | 24530123 | PF, 0.012 μ F, $\pm 10\%$, 63V |
| C642 | 24794101 | EL, 100 μ F, 16V |
| C643 | 24530104 | PF, 0.1 μ F, $\pm 10\%$, 63V |
| C644 | 24797471 | EL, 470 μ F, 50V |
| C645 | 24530104 | PF, 0.1 μ F, $\pm 10\%$, 63V |
| C646 | 24795102 | EL, 1000 μ F, 25V |
| C647 | 24795102 | EL, 1000 μ F, 25V |
| C663 | 24436470 | CD, 47pF |
| C664 | 24436470 | CD, 47pF |
| C665 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C666 | 24353680 | CD, 68pF |
| C667 | 24436471 | CD, 470pF |
| C668 | 24436471 | CD, 470pF |
| C669 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C671 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C674 | 24797470 | EL, 47 μ F, 50V |
| C675 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| C680 | 24636339 | EL, 3.3 μ F, 50V |
| C681 | 24636339 | EL, 3.3 μ F, 50V |
| △ C801 | 24098999 | PF, 0.1 μ F, $\pm 20\%$, AC250V |
| △ C802 | 24094655 | CD, 1000pF, $\pm 20\%$, AC400V |
| △ C803 | 24094655 | CD, 1000pF, $\pm 20\%$, AC400V |
| △ C804 | 24094655 | CD, 1000pF, $\pm 20\%$, AC400V |
| △ C805 | 24094655 | CD, 1000pF, $\pm 20\%$, AC400V |
| △ C806 | 24098999 | PF, 0.1 μ F, $\pm 20\%$, AC250V |
| C811 | 24092281 | CD, 4700pF, $\pm 20\%$, AC250V |
| C812 | 24092281 | CD, 4700pF, $\pm 20\%$, AC250V |
| C813 | 24092281 | CD, 4700pF, $\pm 20\%$, AC250V |
| C814 | 24092281 | CD, 4700pF, $\pm 20\%$, AC250V |
| C817 | 24550474 | PF, 0.47 μ F, 63V |
| C818 | 24086915 | EL, 270 μ F, $\pm 20\%$, 450V |
| C820 | 24636100 | EL, 10 μ F, 50V |
| C822 | 24442681 | CD, 680pF, $\pm 10\%$, 2kV |
| C823 | 24636100 | EL, 10 μ F, 50V |
| C824 | 24797221 | EL, 220 μ F, 50V |
| C825 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| C826 | 24530104 | PF, 0.1 μ F, $\pm 10\%$, 63V |
| C827 | 24598821 | PF, 820pF |
| C828 | 24636479 | EL, 4.7 μ F, 50V |
| C829 | 24757470 | EL, 47 μ F, 100V |
| C830 | 24095931 | PF, 2200pF, 1600V |
| C831 | 24633100 | EL, 10 μ F, 16V |
| C832 | 24442181 | CD, 180pF, $\pm 10\%$, 2kV |
| C833 | 24086953 | EL, 220 μ F, $\pm 20\%$, 160V |
| C834 | 24530104 | PF, 0.1 μ F, $\pm 10\%$, 63V |
| C835 | 24214221 | CD, 220pF, $\pm 10\%$, 500V |
| C836 | 24795222 | EL, 2200 μ F, 25V |
| C837 | 24436561 | CD, 560pF |
| C838 | 24598821 | PF, 820pF |
| C839 | 24550474 | PF, 0.47 μ F, 63V |
| C840 | 24636100 | EL, 10 μ F, 50V |
| C844 | 24214221 | CD, 220pF, $\pm 10\%$, 500V |
| C845 | 24796222 | EL, 2200 μ F, 35V |
| C846 | 24214221 | CD, 220pF, $\pm 10\%$, 500V |
| C847 | 24797222 | EL, 2200 μ F, 50V |
| C861 | 24092027 | CD, 390pF, $\pm 10\%$, 2kV |

| Location No. | Part No. | Description |
|--------------|----------|--------------------------------------------|
| C862 | 24636229 | EL, 2.2 μ F, 50V |
| C863 | 24214391 | CD, 390pF, $\pm 10\%$, 500V |
| C901 | 24640987 | EL, 2.2 μ F, 350V |
| C902 | 24095981 | PF, 2200pF, 1600V |
| CA02 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CA03 | 24633100 | EL, 10 μ F, 16V |
| CA05 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CA06 | 24436300 | CD, 30pF |
| CA07 | 24436300 | CD, 30pF |
| CA08 | 24636010 | EL, 1 μ F, 50V |
| CA09 | 24636100 | EL, 10 μ F, 50V |
| CA10 | 24636479 | EL, 4.7 μ F, 50V |
| CA12 | 24707225 | Tantalum, 2.2 μ F, $\pm 20\%$, 35V |
| CA13 | 24636479 | EL, 4.7 μ F, 50V |
| CA14 | 24795470 | EL, 47 μ F, 25V |
| CA15 | 24212472 | CD, 4700pF, $\pm 10\%$ |
| CA16 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| CA17 | 24212561 | CD, 560pF, $\pm 10\%$ |
| CA18 | 24212472 | CD, 4700pF, $\pm 10\%$ |
| CA19 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| CA20 | 24436391 | CD, 390pF |
| CA21 | 24436221 | CD, 220pF |
| CA22 | 24550104 | PF, 0.1 μ F, 63V |
| CA23 | 24550104 | PF, 0.1 μ F, 63V |
| CA24 | 24550104 | PF, 0.1 μ F, 63V |
| CA25 | 24636229 | EL, 2.2 μ F, 50V |
| CA26 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CA27 | 24550104 | PF, 0.1 μ F, 63V |
| CA28 | 24636100 | EL, 10 μ F, 50V |
| CA29 | 24636100 | EL, 10 μ F, 50V |
| CA30 | 24636010 | EL, 1 μ F, 50V |
| CA32 | 24550104 | PF, 0.1 μ F, 63V |
| CA33 | 24795470 | EL, 47 μ F, 25V |
| CA34 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CA40 | 24794102 | EL, 1000 μ F, 16V |
| CB01 | 24436101 | CD, 100pF |
| CE11 | 24636100 | EL, 10 μ F, 50V |
| CE12 | 24085991 | EL, 1 μ F, $\pm 20\%$, 25V, Non-Polar |
| CE14 | 24636478 | EL, 0.47 μ F, 50V |
| CE15 | 24633100 | EL, 10 μ F, 16V |
| CE16 | 24550224 | PF, 0.22 μ F, 63V |
| CE17 | 24085991 | EL, 1 μ F, $\pm 20\%$, 25V, Non-Polar |
| CG01 | 24633100 | EL, 10 μ F, 16V |
| CG02 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| CG03 | 24794101 | EL, 100 μ F, 16V |
| CG04 | 24794101 | EL, 100 μ F, 16V |
| CG05 | 24633100 | EL, 10 μ F, 16V |
| CG06 | 24794101 | EL, 100 μ F, 16V |
| CG07 | 24794101 | EL, 100 μ F, 16V |
| CG09 | 24550103 | PF, 0.01 μ F, 63V |
| CG10 | 24550103 | PF, 0.01 μ F, 63V |
| CG11 | 24794470 | EL, 47 μ F, 16V |
| CG12 | 24794470 | EL, 47 μ F, 16V |
| CG13 | 24550104 | PF, 0.1 μ F, 63V |
| CG15 | 24550224 | PF, 0.22 μ F, 63V |
| CG16 | 24550473 | PF, 0.047 μ F, 63V |
| CG17 | 24550223 | PF, 0.022 μ F, 63V |
| CG19 | 24794470 | EL, 47 μ F, 16V |
| CG21 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CG22 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CG23 | 24232103 | CD, 0.01 μ F, +80%, -20% |

| Location No. | Part No. | Description |
|--------------|----------|--------------------------------------------|
| CG24 | 24085991 | EL, 1 μ F, $\pm 20\%$, 25V, Non-Polar |
| CG25 | 24085991 | EL, 1 μ F, $\pm 20\%$, 25V, Non-Polar |
| CG26 | 24436151 | CD, 150pF |
| CG27 | 24085023 | EL, 10 μ F, 16V, Non-Polar |
| CG28 | 24636100 | EL, 10 μ F, 50V |
| CH01 | 24636010 | EL, 1 μ F, 50V |
| CH02 | 24636010 | EL, 1 μ F, 50V |
| CH03 | 24636010 | EL, 1 μ F, 50V |
| CH05 | 24636100 | EL, 10 μ F, 50V |
| CH06 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CH07 | 24794471 | EL, 470 μ F, 16V |
| CH10 | 24636010 | EL, 1 μ F, 50V |
| CH11 | 24636010 | EL, 1 μ F, 50V |
| CH12 | 24636010 | EL, 1 μ F, 50V |
| CH13 | 24794471 | EL, 470 μ F, 16V |
| CH14 | 24794471 | EL, 470 μ F, 16V |
| CH15 | 24636100 | EL, 10 μ F, 50V |
| CH16 | 24636100 | EL, 10 μ F, 50V |
| CH17 | 24636010 | EL, 1 μ F, 50V |
| CH30 | 24550104 | PF, 0.1 μ F, 63V |
| CM01 | 24436221 | CD, 220pF |
| CM02 | 24436221 | CD, 220pF |
| CM05 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CM06 | 24357270 | CD, 27pF |
| CM07 | 24593273 | PF, 0.027 μ F |
| CM08 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CM09 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CM10 | 24436270 | CD, 27pF |
| CN01 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CN02 | 24436300 | CD, 30pF |
| CN03 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CN04 | 24436470 | CD, 47pF |
| CN06 | 24436820 | CD, 82pF |
| CN07 | 24436300 | CD, 30pF |
| CN08 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CN09 | 24636100 | EL, 10 μ F, 50V |
| CN10 | 24436101 | CD, 100pF |
| CN11 | 24353080 | CD, 8pF, ± 0.25 pF |
| CN12 | 24353220 | CD, 22pF |
| CN13 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CN14 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CN15 | 24353150 | CD, 15pF |
| CN16 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| CN17 | 24212102 | CD, 1000pF, $\pm 10\%$ |
| CN18 | 24353300 | CD, 30pF |
| CN19 | 24353120 | CD, 12pF |
| CN20 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CN51 | 24094959 | Variable Capacitor, 2 to 12pF, 50V |
| CV01 | 24636229 | EL, 2.2 μ F, 50V |
| CV02 | 24636229 | EL, 2.2 μ F, 50V |
| CV03 | 24636100 | EL, 10 μ F, 50V |
| CV04 | 24636229 | EL, 2.2 μ F, 50V |
| CV05 | 24636229 | EL, 2.2 μ F, 50V |
| CV06 | 24636100 | EL, 10 μ F, 50V |
| CV07 | 24636100 | EL, 10 μ F, 50V |
| CV08 | 24636229 | EL, 2.2 μ F, 50V |
| CV09 | 24636229 | EL, 2.2 μ F, 50V |
| CV10 | 24636100 | EL, 10 μ F, 50V |
| CV11 | 24636229 | EL, 2.2 μ F, 50V |
| CV12 | 24636229 | EL, 2.2 μ F, 50V |

| Location No. | Part No. | Description |
|--------------|----------|------------------------------|
| CV13 | 24636100 | EL, 10 μ F, 50V |
| CV15 | 24636010 | EL, 1 μ F, 50V |
| CV16 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CV17 | 24232103 | CD, 0.01 μ F, +80%, -20% |
| CV18 | 24633100 | EL, 10 μ F, 16V |
| CV19 | 24636100 | EL, 10 μ F, 50V |
| CV20 | 24212471 | CD, 470pF, \pm 10% |
| CV21 | 24212471 | CD, 470pF, \pm 10% |
| CX02 | 24550474 | PF, 0.47 μ F, 63V |
| CX03 | 24550474 | PF, 0.47 μ F, 63V |
| CX04 | 24550474 | PF, 0.47 μ F, 63V |

RESISTORS

| | | |
|--------|----------|--------------------|
| R101 | 24366222 | CF, 2200 ohm |
| R102 | 24366124 | CF, 120k ohm |
| R103 | 24366222 | CF, 2200 ohm |
| R104 | 24366332 | CF, 3300 ohm |
| R105 | 24366153 | CF, 15k ohm |
| R106 | 24366104 | CF, 100k ohm |
| R107 | 24366103 | CF, 10k ohm |
| R108 | 24366102 | CF, 1k ohm |
| R109 | 24366822 | CF, 8200 ohm |
| R110 | 24366562 | CF, 5600 ohm |
| R111 | 24366821 | CF, 820 ohm |
| R112 | 24366332 | CF, 3300 ohm |
| R113 | 24366132 | CF, 1300 ohm |
| R114 | 24366222 | CF, 2200 ohm |
| R115 | 24366101 | CF, 100 ohm |
| R116 | 24366471 | CF, 470 ohm |
| R117 | 24366112 | CF, 1100 ohm |
| R118 | 24366470 | CF, 47 ohm |
| R119 | 24366472 | CF, 4700 ohm |
| R120 | 24366154 | CF, 150k ohm |
| R121 | 24366331 | CF, 330 ohm |
| R122 | 24366820 | CF, 82 ohm |
| R123 | 24366241 | CF, 240 ohm |
| R124 | 24366271 | CF, 270 ohm |
| R125 | 24366331 | CF, 330 ohm |
| R126 | 24366101 | CF, 100 ohm |
| △ R127 | 24552101 | OMF, 100 ohm, 1/2W |
| R128 | 24366334 | CF, 330k ohm |
| R129 | 24366101 | CF, 100 ohm |
| R130 | 24366513 | CF, 51k ohm |
| R131 | 24366753 | CF, 75k ohm |
| R132 | 24366684 | CF, 680k ohm |
| R133 | 24366332 | CF, 3300 ohm |
| R134 | 24366223 | CF, 22k ohm |
| R151 | 24066953 | VR, 5k ohm, 1/10W |
| R152 | 24066951 | VR, 20k ohm, 1/10W |
| R153 | 24066946 | VR, 1M ohm, 1/10W |
| R161 | 24366131 | CF, 130 ohm |
| R162 | 24366680 | CF, 68 ohm |
| R163 | 24366682 | CF, 6800 ohm |
| R164 | 24366102 | CF, 1k ohm |
| R165 | 24366562 | CF, 5600 ohm |
| R166 | 24366390 | CF, 39 ohm |
| △ R167 | 24552101 | OMF, 100 ohm, 1/2W |
| R168 | 24366680 | CF, 68 ohm |
| R169 | 24366682 | CF, 6800 ohm |
| R170 | 24366102 | CF, 1k ohm |
| R171 | 24366562 | CF, 5600 ohm |
| R172 | 24366390 | CF, 39 ohm |
| △ R173 | 24552101 | OMF, 100 ohm, 1/2W |
| R201 | 24366271 | CF, 270 ohm |

| Location No. | Part No. | Description |
|--------------|----------|---------------------|
| R202 | 24366181 | CF, 180 ohm |
| R203 | 24366182 | CF, 1800 ohm |
| R204 | 24366152 | CF, 1500 ohm |
| R205 | 24366152 | CF, 1500 ohm |
| R206 | 24366103 | CF, 10k ohm |
| R207 | 24366103 | CF, 10k ohm |
| R208 | 24366101 | CF, 100 ohm |
| R209 | 24366103 | CF, 10k ohm |
| R210 | 24366203 | CF, 20k ohm |
| R211 | 24366622 | CF, 6200 ohm |
| R212 | 24366103 | CF, 10k ohm |
| R213 | 24366101 | CF, 100 ohm |
| R214 | 24366182 | CF, 1800 ohm |
| R215 | 24366152 | CF, 1500 ohm |
| R216 | 24366133 | CF, 13k ohm |
| R217 | 24366101 | CF, 100 ohm |
| R218 | 24366222 | CF, 2200 ohm |
| R219 | 24366472 | CF, 4700 ohm |
| R225 | 24366132 | CF, 1300 ohm |
| R242 | 24366183 | CF, 18k ohm |
| R243 | 24366223 | CF, 22k ohm |
| R252 | 24061592 | VR, 1k ohm, 1/8W |
| R253 | 24061592 | VR, 1k ohm, 1/8W |
| R255 | 24066952 | VR, 10k ohm, 1/10W |
| R301 | 24366301 | CF, 300 ohm |
| R302 | 24366244 | CF, 240k ohm |
| R303 | 24366303 | CF, 30k ohm |
| R304 | 24366102 | CF, 1k ohm |
| R305 | 24366161 | CF, 160 ohm |
| R306 | 24366471 | CF, 470 ohm |
| R310 | 24366824 | CF, 820k ohm |
| △ R311 | 24552242 | OMF, 2400 ohm, 1/2W |
| R315 | 24366163 | CF, 16k ohm |
| R316 | 24366183 | CF, 18k ohm |
| △ R317 | 24383391 | OMF, 390 ohm, 2W |
| R318 | 24366434 | CF, 430k ohm |
| △ R319 | 24552302 | OMF, 3k ohm, 1/2W |
| △ R323 | 24322129 | OMF, 1.2 ohm, 1W |
| △ R324 | 24552122 | OMF, 1200 ohm, 1/2W |
| △ R327 | 24532130 | FR, 13 ohm, 1W |
| R333 | 24366102 | CF, 1k ohm |
| R351 | 24066950 | VR, 50k ohm, 1/10W |
| R360 | 24366184 | CF, 180k ohm |
| R362 | 24366153 | CF, 15k ohm |
| R386 | 24366561 | CF, 560 ohm |
| R402 | 24366273 | CF, 27k ohm |
| R403 | 24366302 | CF, 3k ohm |
| △ R404 | 24552432 | OMF, 4300 ohm, 1/2W |
| R405 | 24366511 | CF, 510 ohm |
| R406 | 24366431 | CF, 430 ohm |
| R407 | 24366161 | CF, 160 ohm |
| R408 | 24366682 | CF, 6800 ohm |
| R409 | 24366103 | CF, 10k ohm |
| △ R410 | 24552472 | OMF, 4700 ohm, 1/2W |
| R411 | 24366391 | CF, 390 ohm |
| R412 | 24366121 | CF, 120 ohm |
| R413 | 24366103 | CF, 10k ohm |
| R414 | 24366472 | CF, 4700 ohm |
| △ R416 | 24007566 | Cement, 2k ohm, 5W |
| R417 | 24366510 | CF, 51 ohm |
| △ R420 | 24009951 | OMF, 1k ohm, 1W |
| △ R423 | 24552221 | OMF, 220 ohm, 1/2W |
| △ R440 | 24552103 | OMF, 10k ohm, 1/2W |
| △ R441 | 24552103 | OMF, 10k ohm, 1/2W |

| Location No. | Part No. | Description |
|--------------|----------|---------------------|
| △ R442 | 24553102 | OMF, 1k ohm, 1W |
| △ R444 | 24007768 | Cement, 15 ohm, 10W |
| △ R445 | 24552330 | OMF, 33 ohm, 1/2W |
| △ R448 | 24984229 | MF, 2.2 ohm, 2W |
| R451 | 24066951 | VR, 20k ohm, 1/10W |
| R452 | 24069547 | VR, 5k ohm, 0.08W |
| R501 | 24366821 | CF, 820 ohm |
| R502 | 24366334 | CF, 330k ohm |
| R503 | 24366202 | CF, 2k ohm |
| R504 | 24366391 | CF, 390 ohm |
| R505 | 24366822 | CF, 8200 ohm |
| R507 | 24366822 | CF, 8200 ohm |
| R508 | 24366821 | CF, 820 ohm |
| R509 | 24366203 | CF, 20k ohm |
| R510 | 24366101 | CF, 100 ohm |
| R511 | 24366562 | CF, 5600 ohm |
| R512 | 24366152 | CF, 1500 ohm |
| R513 | 24366152 | CF, 1500 ohm |
| R515 | 24366221 | CF, 220 ohm |
| R516 | 24366221 | CF, 220 ohm |
| R517 | 24366221 | CF, 220 ohm |
| R521 | 24366102 | CF, 1k ohm |
| R522 | 24360185 | CF, 1.8M ohm, 1/8W |
| R523 | 24366303 | CF, 30k ohm |
| R524 | 24366103 | CF, 10k ohm |
| R525 | 24366103 | CF, 10k ohm |
| R526 | 24366122 | CF, 1200 ohm |
| R527 | 24366122 | CF, 1200 ohm |
| R531 | 24366271 | CF, 270 ohm |
| R532 | 24366431 | CF, 430 ohm |
| R533 | 24366561 | CF, 560 ohm |
| R535 | 24366561 | CF, 560 ohm |
| R537 | 24366561 | CF, 560 ohm |
| R538 | 24366511 | CF, 510 ohm |
| R539 | 24366561 | CF, 560 ohm |
| R541 | 24366821 | CF, 820 ohm |
| R542 | 24366271 | CF, 270 ohm |
| R543 | 24366103 | CF, 10k ohm |
| R544 | 24366101 | CF, 100 ohm |
| R547 | 24366101 | CF, 100 ohm |
| R548 | 24366101 | CF, 100 ohm |
| R549 | 24366101 | CF, 100 ohm |
| R551 | 24066955 | VR, 1k ohm, 1/10W |
| R557 | 24061591 | VR, 2k ohm, 1/8W |
| R558 | 24061591 | VR, 2k ohm, 1/8W |
| R559 | 24061591 | VR, 2k ohm, 1/8W |
| R565 | 24366560 | CF, 56 ohm |
| R566 | 24366560 | CF, 56 ohm |
| R567 | 24366560 | CF, 56 ohm |
| R568 | 24366102 | CF, 1k ohm |
| △ R591 | 24009974 | OMF, 15k ohm, 2W |
| △ R592 | 24009974 | OMF, 15k ohm, 2W |
| △ R593 | 24009974 | OMF, 15k ohm, 2W |
| R603 | 24366222 | CF, 2200 ohm |
| R610 | 24366473 | CF, 47k ohm |
| R611 | 24366473 | CF, 47k ohm |
| R612 | 24366154 | CF, 150k ohm |
| R613 | 24366471 | CF, 470 ohm |
| R615 | 24366471 | CF, 470 ohm |
| R616 | 24366104 | CF, 100k ohm |
| R617 | 24366104 | CF, 100k ohm |
| R619 | 24366122 | CF, 1200 ohm |
| R620 | 24366103 | CF, 10k ohm |
| R621 | 24366122 | CF, 1200 ohm |

| Location No. | Part No. | Description |
|--------------|----------|-------------------------|
| R622 | 24366122 | CF, 1200 ohm |
| R624 | 24366154 | CF, 150k ohm |
| R625 | 24366154 | CF, 150k ohm |
| R626 | 24366472 | CF, 4700 ohm |
| R627 | 24366472 | CF, 4700 ohm |
| R628 | 24366123 | CF, 12k ohm |
| R629 | 24366123 | CF, 12k ohm |
| R632 | 24366562 | CF, 5600 ohm |
| R633 | 24366562 | CF, 5600 ohm |
| R639 | 24366332 | CF, 3300 ohm |
| R640 | 24366182 | CF, 1800 ohm |
| R642 | 24366332 | CF, 3300 ohm |
| R643(U902) | 24366103 | CF, 10k ohm |
| R643(U903A) | 24366182 | CF, 1800 ohm |
| R644 | 24366229 | CF, 2.2 ohm |
| R645 | 24366229 | CF, 2.2 ohm |
| R646 | 24366473 | CF, 47k ohm |
| R647 | 24366473 | CF, 47k ohm |
| R648 | 24366682 | CF, 6800 ohm |
| R649 | 24366682 | CF, 6800 ohm |
| R664 | 24366102 | CF, 1k ohm |
| R665 | 24366563 | CF, 56k ohm |
| R666 | 24366563 | CF, 56k ohm |
| R667 | 24366102 | CF, 1k ohm |
| R668 | 24366102 | CF, 1k ohm |
| R669 | 24366102 | CF, 1k ohm |
| R670 | 24366183 | CF, 18k ohm |
| R671 | 24366242 | CF, 2400 ohm |
| R672 | 24366561 | CF, 560 ohm |
| R673 | 24366271 | CF, 270 ohm |
| R675 | 24366821 | CF, 820 ohm |
| R679 | 24366102 | CF, 1k ohm |
| R680 | 24366152 | CF, 1500 ohm |
| R681 | 24366223 | CF, 22k ohm |
| R682 | 24366105 | CF, 1M ohm |
| R683 | 24366821 | CF, 820 ohm |
| R684 | 24366222 | CF, 2200 ohm |
| △ R686 | 24552431 | OMF, 430 ohm, 1/2W |
| △ R690 | 24552181 | OMF, 180 ohm, 1/2W |
| △ R691 | 24552181 | OMF, 180 ohm, 1/2W |
| R801 | 24942565 | CC, 5.6M ohm, 1/2W |
| △ R805 | 24007857 | Cement, 6.2 ohm, 15W |
| △ R810 | 24384683 | OMF, 68k ohm, 3W |
| △ R811 | 24531100 | FR, 10 ohm, 1/2W |
| △ R812 | 24321689 | OMF, 6.8 ohm, 1/2W |
| △ R813 | 24553471 | OMF, 470 ohm, 1W |
| △ R814 | 24322399 | OMF, 3.9 ohm, 1W |
| R815 | 24367683 | CF, 68k ohm, ±2% |
| R816 | 24367123 | CF, 12k ohm, ±2% |
| △ R817 | 24007952 | Cement, 6.8 ohm, 5W |
| R818 | 24366331 | CF, 330 ohm |
| △ R819 | 24327114 | MF, 110k ohm, ±1%, 1/4W |
| R820 | 24366100 | CF, 10 ohm |
| R821 | 24366101 | CF, 100 ohm |
| △ R822 | 24322518 | OMF, 0.51 ohm, 1W |
| R823 | 24007738 | Cement, 330 ohm, 10W |
| △ R824 | 24322518 | OMF, 0.51 ohm, 1W |
| R825 | 24366101 | CF, 100 ohm |
| R826 | 24366331 | CF, 330 ohm |
| △ R827 | 24383822 | OMF, 8200 ohm, 2W |
| R828 | 24366103 | CF, 10k ohm |
| △ R830 | 24552471 | OMF, 470 ohm, 1/2W |
| R831 | 24366102 | CF, 1k ohm |
| △ R832 | 24321338 | OMF, 0.33 ohm, 1/2W |

| Location No. | Part No. | Description |
|--------------|----------|---------------------------------|
| △ R833 | 24327104 | MF, 100k ohm, $\pm 1\%$, 1/4W |
| △ R834 | 24327222 | MF, 2.2k ohm, $\pm 1\%$, 1/4W |
| R835 | 24366823 | CF, 82k ohm |
| △ R836 | 24327104 | MF, 100k ohm, $\pm 1\%$, 1/4W |
| △ R837 | 24381100 | OMF, 10 ohm, 1/2W |
| R838 | 24366103 | CF, 10k ohm |
| R840 | 24366103 | CF, 10k ohm |
| △ R841 | 24381562 | OMF, 5600 ohm, 1/2W |
| R843 | 24366332 | CF, 3300 ohm |
| R844 | 24366103 | CF, 10k ohm |
| R845 | 24366332 | CF, 3300 ohm |
| R847 | 24366102 | CF, 1k ohm |
| R851 | 24066924 | VR, 50k ohm, 1/10W |
| R852 | 24066925 | VR, 20k ohm, 1/10W |
| R860 | 24366182 | CF, 1800 ohm |
| △ R861 | 24982398 | OMF, 0.39 ohm, 1/2W |
| R865 | 24366222 | CF, 2200 ohm |
| R867 | 24366472 | CF, 4700 ohm |
| R868 | 24366103 | CF, 10k ohm |
| R869 | 24366102 | CF, 1k ohm |
| R870 | 24366102 | CF, 1k ohm |
| R871 | 24366222 | CF, 2200 ohm |
| R872 | 24366103 | CF, 10k ohm |
| △ R873 | 24383621 | OMF, 620 ohm, 2W |
| R874 | 24366123 | CF, 12k ohm |
| △ R890 | 24000630 | PTC Thermistor, Dual |
| R901 | 24946272 | CC, 2700 ohm, $\pm 10\%$, 1/2W |
| R902 | 24946272 | CC, 2700 ohm, $\pm 10\%$, 1/2W |
| R903 | 24946272 | CC, 2700 ohm, $\pm 10\%$, 1/2W |
| △ R920 | 24000938 | FR, 0.47 ohm, $\pm 10\%$, 2W |
| RA01 | 24366223 | CF, 22k ohm |
| RA02 | 24366223 | CF, 22k ohm |
| RA03 | 24366102 | CF, 1k ohm |
| RA04 | 24366102 | CF, 1k ohm |
| RA05 | 24366272 | CF, 2700 ohm |
| RA06 | 24366472 | CF, 4700 ohm |
| RA07 | 24366472 | CF, 4700 ohm |
| RA08 | 24366472 | CF, 4700 ohm |
| RA09 | 24366103 | CF, 10k ohm |
| RA10 | 24366472 | CF, 4700 ohm |
| RA11 | 24366102 | CF, 1k ohm |
| RA12 | 24366153 | CF, 15k ohm |
| RA13 | 24366563 | CF, 56k ohm |
| RA14 | 24366103 | CF, 10k ohm |
| RA15 | 24366102 | CF, 1k ohm |
| RA17 | 24366102 | CF, 1k ohm |
| RA18 | 24366101 | CF, 100 ohm |
| RA19 | 24366472 | CF, 4700 ohm |
| RA20 | 24366102 | CF, 1k ohm |
| RA21 | 24366223 | CF, 22k ohm |
| RA22 | 24366333 | CF, 33k ohm |
| RA23 | 24366333 | CF, 33k ohm |
| RA24 | 24366333 | CF, 33k ohm |
| RA25 | 24360225 | CF, 2.2M ohm, 1/8W |
| RA26(U902) | 24366333 | CF, 33k ohm |
| RA26(U903D) | 24366102 | CF, 1k ohm |
| RA27 | 24366333 | CF, 33k ohm |
| RA28 | 24366473 | CF, 47k ohm |
| RA29 | 24366103 | CF, 10k ohm |
| RA30 | 24366102 | CF, 1k ohm |
| RA31 | 24366472 | CF, 4700 ohm |
| RA32 | 24366102 | CF, 1k ohm |
| RA33 | 24366102 | CF, 1k ohm |
| RA34 | 24366103 | CF, 10k ohm |

| Location No. | Part No. | Description |
|--------------|----------|--------------------|
| RA35 | 24366152 | CF, 1500 ohm |
| RA36 | 24366473 | CF, 47k ohm |
| RA37 | 24366103 | CF, 10k ohm |
| RA38 | 24366392 | CF, 3900 ohm |
| RA39 | 24366123 | CF, 12k ohm |
| RA40 | 24366563 | CF, 56k ohm |
| RA41 | 24366564 | CF, 560k ohm |
| RA42 | 24366561 | CF, 560 ohm |
| RA43 | 24366473 | CF, 47k ohm |
| RA44 | 24366105 | CF, 1M ohm |
| RA45 | 24366102 | CF, 1k ohm |
| RA46 | 24366153 | CF, 15k ohm |
| RA48 | 24366153 | CF, 15k ohm |
| RA49 | 24366123 | CF, 12k ohm |
| RA60 | 24366102 | CF, 1k ohm |
| RA66 | 24366102 | CF, 1k ohm |
| RA67 | 24366103 | CF, 10k ohm |
| RA68 | 24366152 | CF, 1500 ohm |
| RA69 | 24366152 | CF, 1500 ohm |
| RA70 | 24941565 | CC, 5.6M ohm, 1/4W |
| RA71 | 24941565 | CC, 5.6M ohm, 1/4W |
| RA72 | 24941565 | CC, 5.6M ohm, 1/4W |
| RA73 | 24941565 | CC, 5.6M ohm, 1/4W |
| RA74 | 24366472 | CF, 4700 ohm |
| RA75 | 24366471 | CF, 470 ohm |
| RA76 | 24366471 | CF, 470 ohm |
| RA77 | 24366471 | CF, 470 ohm |
| RA79 | 24366123 | CF, 12k ohm |
| RA80 | 24366221 | CF, 220 ohm |
| RA81 | 24366103 | CF, 10k ohm |
| RA82 | 24366103 | CF, 10k ohm |
| RA83 | 24366473 | CF, 47k ohm |
| RA84 | 24366103 | CF, 10k ohm |
| RA85 | 24366102 | CF, 1k ohm |
| RA86 | 24366392 | CF, 3900 ohm |
| RA87 | 24366332 | CF, 3300 ohm |
| RA88 | 24366222 | CF, 2200 ohm |
| RA89 | 24366103 | CF, 10k ohm |
| RA90 | 24366103 | CF, 10k ohm |
| RB01 | 24366472 | CF, 4700 ohm |
| RB02 | 24366332 | CF, 3300 ohm |
| RB03 | 24366103 | CF, 10k ohm |
| RB04 | 24366103 | CF, 10k ohm |
| RB05 | 24366392 | CF, 3900 ohm |
| RB06 | 24366473 | CF, 47k ohm |
| RE11 | 24366562 | CF, 5600 ohm |
| RE12 | 24366392 | CF, 3900 ohm |
| RE35 | 24366222 | CF, 2200 ohm |
| RE36 | 24366823 | CF, 82k ohm |
| RE37 | 24366823 | CF, 82k ohm |
| RE38 | 24366563 | CF, 56k ohm |
| RE39 | 24366202 | CF, 2k ohm |
| RE40 | 24366123 | CF, 12k ohm |
| RE41 | 24366103 | CF, 10k ohm |
| RE42 | 24366472 | CF, 4700 ohm |
| RE43 | 24366563 | CF, 56k ohm |
| RG01 | 24366272 | CF, 2700 ohm |
| RG02 | 24366103 | CF, 10k ohm |
| RG03 | 24366103 | CF, 10k ohm |
| RG06 | 24366104 | CF, 100k ohm |
| RG07 | 24366104 | CF, 100k ohm |
| RG09 | 24366473 | CF, 47k ohm |
| RG12 | 24366303 | CF, 30k ohm |
| RG13 | 24366103 | CF, 10k ohm |

| Location No. | Part No. | Description |
|--------------|----------|--------------------|
| RG14 | 24366822 | CF, 8200 ohm |
| RG15 | 24366103 | CF, 10k ohm |
| RG16 | 24366223 | CF, 22k ohm |
| RG17 | 24366103 | CF, 10k ohm |
| RG21 | 24366221 | CF, 220 ohm |
| RG22 | 24366103 | CF, 10k ohm |
| RG23 | 24366332 | CF, 3300 ohm |
| RG24 | 24366332 | CF, 3300 ohm |
| RG25 | 24366101 | CF, 100 ohm |
| RG26 | 24366102 | CF, 1k ohm |
| RG27 | 24366101 | CF, 100 ohm |
| RG28 | 24366102 | CF, 1k ohm |
| RG33 | 24366122 | CF, 1200 ohm |
| RG34 | 24366122 | CF, 1200 ohm |
| RG35 | 24366473 | CF, 47k ohm |
| RG38 | 24366103 | CF, 10k ohm |
| RG43 | 24366103 | CF, 10k ohm |
| RG46 | 24366103 | CF, 10k ohm |
| RG47 | 24366103 | CF, 10k ohm |
| RG51 | 24066939 | VR, 10k ohm, 1/10W |
| RG64 | 24366562 | CF, 5600 ohm |
| RG65 | 24366473 | CF, 47k ohm |
| RG66 | 24366224 | CF, 220k ohm |
| RG67 | 24366473 | CF, 47k ohm |
| RH01 | 24366101 | CF, 100 ohm |
| RH02 | 24366101 | CF, 100 ohm |
| RH03 | 24366101 | CF, 100 ohm |
| RH04 | 24366510 | CF, 51 ohm |
| RH05 | 24366510 | CF, 51 ohm |
| RH06 | 24366510 | CF, 51 ohm |
| RH07 | 24366220 | CF, 22 ohm |
| RH08 | 24366220 | CF, 22 ohm |
| RH09 | 24366220 | CF, 22 ohm |
| RH10 | 24366103 | CF, 10k ohm |
| RH11 | 24366102 | CF, 1k ohm |
| RH14 | 24366102 | CF, 1k ohm |
| RH15 | 24366103 | CF, 10k ohm |
| RH16 | 24366103 | CF, 10k ohm |
| RH17 | 24366680 | CF, 68 ohm |
| RH18 | 24366910 | CF, 91 ohm |
| RH19 | 24366104 | CF, 100k ohm |
| RH20 | 24366104 | CF, 100k ohm |
| RH21 | 24366910 | CF, 91 ohm |
| RH22 | 24366103 | CF, 10k ohm |
| RH23 | 24366104 | CF, 100k ohm |
| RH24 | 24366680 | CF, 68 ohm |
| RH25 | 24366472 | CF, 4700 ohm |
| RH27 | 24366102 | CF, 1k ohm |
| RH28 | 24366102 | CF, 1k ohm |
| RH29 | 24366152 | CF, 1500 ohm |
| RH30 | 24366103 | CF, 10k ohm |
| RH31 | 24366682 | CF, 6800 ohm |
| RH32 | 24366102 | CF, 1k ohm |
| RH33 | 24366103 | CF, 10k ohm |
| RH34 | 24366750 | CF, 75 ohm |
| RH39 | 24366820 | CF, 82 ohm |
| RH40 | 24366242 | CF, 2400 ohm |
| RH41 | 24366391 | CF, 390 ohm |
| RH42 | 24366242 | CF, 2400 ohm |
| RH43 | 24366391 | CF, 390 ohm |
| RH44 | 24366242 | CF, 2400 ohm |
| RH45 | 24366681 | CF, 680 ohm |
| RH46 | 24366104 | CF, 100k ohm |
| RH47 | 24366123 | CF, 12k ohm |

| Location No. | Part No. | Description |
|--------------|----------|--------------------|
| RH48 | 24366123 | CF, 12k ohm |
| RH49 | 24366750 | CF, 75 ohm |
| RH60 | 24366820 | CF, 82 ohm |
| RH61 | 24366104 | CF, 100k ohm |
| RH62 | 24366104 | CF, 100k ohm |
| RH63 | 24366471 | CF, 470 ohm |
| RH64 | 24366471 | CF, 470 ohm |
| RH65 | 24366104 | CF, 100k ohm |
| RH66 | 24366104 | CF, 100k ohm |
| RH67 | 24366473 | CF, 47k ohm |
| RH68 | 24366473 | CF, 47k ohm |
| RM03 | 24366272 | CF, 2700 ohm |
| RM04 | 24366432 | CF, 4300 ohm |
| RM05 | 24366471 | CF, 470 ohm |
| RM06 | 24366471 | CF, 470 ohm |
| RM07 | 24941475 | CC, 4.7M ohm, 1/4W |
| RM26 | 24366333 | CF, 33k ohm |
| RN01 | 24366103 | CF, 10k ohm |
| RN02 | 24366471 | CF, 470 ohm |
| RN03 | 24366223 | CF, 22k ohm |
| RN04 | 24366201 | CF, 200 ohm |
| RN05 | 24366222 | CF, 2200 ohm |
| RN06 | 24366392 | CF, 3900 ohm |
| RN07 | 24366103 | CF, 10k ohm |
| RN08 | 24360185 | CF, 1.8M ohm, 1/8W |
| RN09 | 24366103 | CF, 10k ohm |
| RN10 | 24366472 | CF, 4700 ohm |
| RN11 | 24366222 | CF, 2200 ohm |
| RN12 | 24366272 | CF, 2700 ohm |
| RN13 | 24366103 | CF, 10k ohm |
| RN14 | 24366103 | CF, 10k ohm |
| RN15 | 24366223 | CF, 22k ohm |
| RN16 | 24366103 | CF, 10k ohm |
| RN17 | 24366473 | CF, 47k ohm |
| RN18 | 24366103 | CF, 10k ohm |
| RN19 | 24366473 | CF, 47k ohm |
| RN20 | 24366821 | CF, 820 ohm |
| RN21 | 24366332 | CF, 3300 ohm |
| RN22 | 24366152 | CF, 1500 ohm |
| RN23 | 24366472 | CF, 4700 ohm |
| RN24 | 24366103 | CF, 10k ohm |
| RN25 | 24366244 | CF, 240k ohm |
| RN26 | 24366472 | CF, 4700 ohm |
| RN27 | 24366153 | CF, 15k ohm |
| RN28 | 24366332 | CF, 3300 ohm |
| RN30 | 24366103 | CF, 10k ohm |
| RN31 | 24366473 | CF, 47k ohm |
| RN32 | 24366105 | CF, 1M ohm |
| RN33 | 24366103 | CF, 10k ohm |
| RN34 | 24366473 | CF, 47k ohm |
| RN35 | 24366102 | CF, 1k ohm |
| RN36 | 24366103 | CF, 10k ohm |
| RN37 | 24366473 | CF, 47k ohm |
| RN38 | 24366562 | CF, 5600 ohm |
| RN39 | 24366562 | CF, 5600 ohm |
| RN40 | 24366562 | CF, 5600 ohm |
| RN41 | 24366152 | CF, 1500 ohm |
| RN42 | 24366473 | CF, 47k ohm |
| RN43 | 24366103 | CF, 10k ohm |
| RN44 | 24366152 | CF, 1500 ohm |
| RN45 | 24366473 | CF, 47k ohm |
| RN46 | 24366103 | CF, 10k ohm |
| RN47 | 24366473 | CF, 47k ohm |
| RN48 | 24366103 | CF, 10k ohm |

| Location No. | Part No. | Description |
|---------------------------------|----------|--------------------------|
| RN49 | 24366152 | CF, 1500 ohm |
| RN60 | 24366103 | CF, 10k ohm |
| RN61 | 24366103 | CF, 10k ohm |
| RN62 | 24366103 | CF, 10k ohm |
| RN63 | 24366223 | CF, 22k ohm |
| RN64 | 24366103 | CF, 10k ohm |
| RR06 | 24366391 | CF, 390 ohm |
| RV01 | 24366821 | CF, 820 ohm |
| RV02 | 24366102 | CF, 1k ohm |
| RV03 | 24366102 | CF, 1k ohm |
| RV04 | 24366102 | CF, 1k ohm |
| RV05 | 24366101 | CF, 100 ohm |
| RV06 | 24366101 | CF, 100 ohm |
| RV07 | 24366102 | CF, 1k ohm |
| RV08 | 24366102 | CF, 1k ohm |
| RV09 | 24366101 | CF, 100 ohm |
| RV10 | 24366102 | CF, 1k ohm |
| RV11 | 24366102 | CF, 1k ohm |
| RV12 | 24366101 | CF, 100 ohm |
| RV13 | 24366103 | CF, 10k ohm |
| RV14 | 24366103 | CF, 10k ohm |
| RV15 | 24366101 | CF, 100 ohm |
| RV16 | 24366473 | CF, 47k ohm |
| RV17 | 24366473 | CF, 47k ohm |
| RV18 | 24366103 | CF, 10k ohm |
| RV19 | 24366102 | CF, 1k ohm |
| RV20 | 24366101 | CF, 100 ohm |
| RV21 | 24366332 | CF, 3300 ohm |
| RV23 | 24366332 | CF, 3300 ohm |
| △ RV24 | 24552750 | OMF, 75 ohm, 1/2W |
| RV25 | 24366331 | CF, 330 ohm |
| RV26 | 24366391 | CF, 390 ohm |
| RV27 | 24366104 | CF, 100k ohm |
| RV28 | 24366104 | CF, 100k ohm |
| RV29 | 24366223 | CF, 22k ohm |
| RV30 | 24366223 | CF, 22k ohm |
| RV31 | 24366223 | CF, 22k ohm |
| RV32 | 24366223 | CF, 22k ohm |
| RV33 | 24366473 | CF, 47k ohm |
| RV35 | 24366473 | CF, 47k ohm |
| RV37 | 24366101 | CF, 100 ohm |
| RV38(U902) | 24366104 | CF, 100k ohm |
| RV38(U903D) | 24366102 | CF, 1k ohm |
| RV39(U902) | 24366102 | CF, 1k ohm |
| RV39(U903D) | 24366102 | CF, 1k ohm |
| RV40 | 24366563 | CF, 56k ohm |
| RX02 | 24366102 | CF, 1k ohm |
| RX05 | 24366101 | CF, 100 ohm |
| RX08 | 24366101 | CF, 100 ohm |
| RX10 | 24366101 | CF, 100 ohm |
| RX13 | 24366223 | CF, 22k ohm |
| COILS & TRANSFORMERS | | |
| L101 | 23237987 | Coil, Peaking, TRF4100AC |
| L102 | 23262650 | Coil, IF, TRF1149D |
| L103 | 23237987 | Coil, Peaking, TRF4100AC |
| L104 | 23237987 | Coil, Peaking, TRF4100AC |
| L105 | 23237984 | Coil, Peaking, TRF4180AC |
| L107 | 23237987 | Coil, Peaking, TRF4100AC |
| L151 | 23262783 | Coil, IF, TRF1105T |
| L152 | 23262813 | Coil, IF, TRF1077D |
| L153 | 23262663 | Coil, IF, TRF1157T |
| L161 | 23201005 | Coil, Choke, TRF9202C |

| Location No. | Part No. | Description |
|-----------------------|----------|------------------------------------|
| L162 | 23201005 | Coil, Choke, TRF9202C |
| L201 | 23237974 | Coil, Peaking, TRF4121AC |
| L311 | 23261974 | Coil, Choke, HC5-035 |
| L405 | 23221739 | Coil, Choke, TRF9252D |
| L406 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L411 | 23233065 | Coil, Linearity, TLN2111 |
| △ L462 | 23227339 | Deflection Yoke, 4700-02 |
| L503 | 23237987 | Coil, Peaking, TRF4100AC |
| L551 | 23250972 | Coil, 1H-Delay Matching, TRF5418D |
| L590 | 23237973 | Coil, Peaking, TRF4151AC |
| L591 | 23237973 | Coil, Peaking, TRF4151AC |
| L592 | 23237973 | Coil, Peaking, TRF4151AC |
| L602 | 23262845 | Coil, PIF, TRF1056 |
| L661 | 23237986 | Coil, Peaking, TRF4120AC |
| L662 | 23232946 | Coil, Variable, TRF3073D |
| L802 | 23221076 | Coil, Choke, TLN1015R |
| L803 | 23261975 | Coil, Choke, TRF9229 |
| L804 | 23261975 | Coil, Choke, TRF9229 |
| L805 | 23221746 | Coil, Choke, TLN3155D |
| L806 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L807 | 23237987 | Coil, Peaking, TRF4100AC |
| L808 | 23222694 | Coil, Width, TLN2026 |
| L809 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L811 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| △ L901 | 23200779 | Coil, Degaussing, TSB-2231 |
| LA01 | 23238934 | Coil, Peaking, TRF4109AC |
| LA02 | 23221803 | Coil, Choke, TLN3040D |
| LB01 | 23262778 | Coil, IF, TRF1112 |
| LG01 | 23262808 | Coil, IF, TRF1082 |
| LM01 | 23262797 | Coil, IF, TRF1093D |
| LM02 | 23272988 | Coil, Chroma Demod, TRF5414 |
| LM03 | 23272988 | Coil, Chroma Demod, TRF5414 |
| LM04 | 23262798 | Coil, IF, TRF1092D |
| LN02 | 23237985 | Coil, Peaking, TRF4150AC |
| LN03 | 23237983 | Coil, Peaking, TRF4220AC |
| LV01 | 23237988 | Coil, Peaking, TRF4829AC |
| △ T401 | 23224983 | Transformer, Horiz. Drive, TLN1039 |
| △ T461 | 23236201 | Transformer, Flyback, TFB4090AD |
| T801 | 23211934 | Line Filter, TRF3133 |
| T802 | 23211962 | Line Filter, TRF3117 |
| △ T803 | 23213503 | Transformer, Converter, G4572-P4 |
| T804 | 23224917 | Transformer, Separation, TLN2122 |
| SEMICONDUCTORS | | |
| IC101 | 23318437 | IC, μ PC1820CA |
| IC303 | 23119548 | IC, AN5515 |
| IC405 | 23318218 | IC, μ PC7812H |
| IC501 | B0379435 | IC, TA8653N |
| IC601 | B0356190 | IC, TA7630P |
| IC605 | 23318413 | IC, LA4282 |
| IC661 | B0383400 | IC, TA8710S |
| IC803 | 23318411 | IC, TEA2164 |
| IC806 | 23318299 | IC, L78MR05-FA |
| IC807 | 23318412 | IC, TEA5170 |
| ICA01 | 23318440 | IC, M50436-687SP |
| ICA02 | 23119182 | IC, μ PD6336C |
| ICA03 | 23318397 | IC, M6M80021P |

| Location No. | Part No. | Description |
|--------------|----------|----------------------------|
| ICA12 | 23119441 | IC, LA7910 |
| ICG01 | 23119092 | IC, TDA6600-2 |
| ICG02 | B0349250 | IC, TA75393S |
| ICG03 | B0470522 | IC, TC4052BP |
| ICH01 | 23119139 | IC, AN5862K |
| ICV01 | B0383505 | IC, TA8720AN |
| Q102 | 23114691 | Transistor, BC557A |
| Q103 | 23118980 | Transistor, BC337 |
| Q104 | 23114689 | Transistor, BC547A |
| Q161 | A6708871 | Transistor, 2SC388ATM |
| Q162 | A6708871 | Transistor, 2SC388ATM |
| Q201 | 23114689 | Transistor, BC547A |
| Q202 | 23114689 | Transistor, BC547A |
| Q301 | 23114632 | Transistor, BC547B |
| Q303B | 23035308 | Screw, BTB3X8SZN |
| Q360 | 23114689 | Transistor, BC547A |
| Q402 | A6330069 | Transistor, 2SC2482 FA-1 |
| △ Q404 | 23314375 | Transistor, ON4409 |
| Q406 | 23314229 | Transistor, 2SD1378-Q |
| Q502 | 23114691 | Transistor, BC557A |
| Q503 | 23114691 | Transistor, BC557A |
| Q505 | 23114693 | Transistor, BF871 |
| Q506 | 23114689 | Transistor, BC547A |
| Q508 | 23114693 | Transistor, BF871 |
| Q509 | 23114689 | Transistor, BC547A |
| Q511 | 23114693 | Transistor, BF871 |
| Q512 | 23114689 | Transistor, BC547A |
| Q514 | 23114688 | Transistor, BC327 |
| Q515 | 23114689 | Transistor, BC547A |
| Q604 | 23114689 | Transistor, BC547A |
| Q606 | 23114689 | Transistor, BC547A |
| Q607 | A6342200 | Transistor, 2SC2878-A |
| Q608 | A6342200 | Transistor, 2SC2878-A |
| Q609 | 23114691 | Transistor, BC557A |
| Q610 | A6342200 | Transistor, 2SC2878-A |
| Q611 | A6342200 | Transistor, 2SC2878-A |
| Q660 | 23114689 | Transistor, BC547A |
| Q671 | A6708871 | Transistor, 2SC388ATM |
| Q672 | A6708871 | Transistor, 2SC388ATM |
| △ Q804 | 23314547 | Transistor, 2SC4199A |
| Q805 | A6533750 | Transistor, 2SA1013-O |
| Q809 | 23114632 | Transistor, BC547B |
| Q810 | A6328333 | Transistor, 2SC2383-Y |
| Q811 | 23114546 | Transistor, BC557B |
| Q814 | A6546310 | Transistor, 2SA1297Y |
| Q815 | 23114632 | Transistor, BC547B |
| Q816 | A6867980 | Transistor, 2SD1405-V |
| Q817 | A6321240 | Transistor, 2SC2120-Y |
| QA05 | 23114689 | Transistor, BC547A |
| QA06 | 23114691 | Transistor, BC557A |
| QA07 | 23114689 | Transistor, BC547A |
| QA08 | 23114691 | Transistor, BC557A |
| QA09 | 23114689 | Transistor, BC547A |
| QA11 | 23114689 | Transistor, BC547A |
| QA13 | 23114689 | Transistor, BC547A |
| QA14 | 23114689 | Transistor, BC547A |
| QA15(U902) | A6041876 | Transistor, 2SK117-GR FA-2 |
| QA15(U903D) | 23114689 | Transistor, BC547A |
| QA16 | 23114689 | Transistor, BC547A |
| QA17 | 23114689 | Transistor, BC547A |
| QA19 | 23114689 | Transistor, BC547A |
| QA20 | 23114689 | Transistor, BC547A |
| QB01 | 23114689 | Transistor, BC547A |
| QB02 | 23114689 | Transistor, BC547A |

| Location No. | Part No. | Description |
|--------------|----------|----------------------------|
| QE10 | 23114689 | Transistor, BC547A |
| QE11 | 23114691 | Transistor, BC557A |
| QG05 | 23114689 | Transistor, BC547A |
| QG07 | 23114689 | Transistor, BC547A |
| QG09 | 23114689 | Transistor, BC547A |
| QG10 | 23114691 | Transistor, BC557A |
| QG14 | 23114689 | Transistor, BC547A |
| QG15 | 23114689 | Transistor, BC547A |
| QG16 | 23114689 | Transistor, BC547A |
| QG18 | 23114689 | Transistor, BC547A |
| QH02 | 23114689 | Transistor, BC547A |
| QH03 | A6734590 | Transistor, 2SC752GTM-Y |
| QH04 | 23114689 | Transistor, BC547A |
| QH05 | 23114689 | Transistor, BC547A |
| QN02 | 23114691 | Transistor, BC557A |
| QN03 | 23114691 | Transistor, BC557A |
| QN04 | 23114689 | Transistor, BC547A |
| QN05 | 23114689 | Transistor, BC547A |
| QN06 | 23114689 | Transistor, BC547A |
| QN07 | 23114689 | Transistor, BC547A |
| QN08 | 23114689 | Transistor, BC547A |
| QN09 | 23114689 | Transistor, BC547A |
| QN10 | 23114689 | Transistor, BC547A |
| QN11 | A6041876 | Transistor, 2SK117-GR FA-2 |
| QN12 | 23114689 | Transistor, BC547A |
| QN13 | 23114689 | Transistor, BC547A |
| QN14 | 23114689 | Transistor, BC547A |
| QN15 | 23114689 | Transistor, BC547A |
| QN16 | 23114689 | Transistor, BC547A |
| QN17 | 23114689 | Transistor, BC547A |
| QV02 | 23114691 | Transistor, BC557A |
| QV03 | 23114689 | Transistor, BC547A |
| QV05 | 23114691 | Transistor, BC557A |
| QV06 | A6342200 | Transistor, 2SC2878-A |
| QV07 | A6342200 | Transistor, 2SC2878-A |
| QV08 | A6342200 | Transistor, 2SC2878-A |
| QV11 | A6342200 | Transistor, 2SC2878-A |
| QV12 | A6342200 | Transistor, 2SC2878-A |
| QV14 | 23114691 | Transistor, BC557A |
| QV15 | 23114691 | Transistor, BC557A |
| D241 | A7150041 | Diode, 1SS104 |
| D302 | 23118479 | Diode, BYD33J |
| D305 | 23118479 | Diode, BYD33J |
| D314 | A7117205 | Diode, Zener, 04AZ12X |
| D315 | A7116725 | Diode, Zener, 04AZ7.5Z |
| D320 | 23115599 | Diode, 1N4148 |
| D321 | 23115599 | Diode, 1N4148 |
| D401 | A7116925 | Diode, Zener, 04AZ9.1Z |
| D402 | A7117715 | Diode, Zener, 04AZ20Y |
| D403 | 23115603 | Diode, Zener, ZPD12 |
| D406 | 23118479 | Diode, BYD33J |
| D408 | 23118052 | Diode, RU4Z |
| D409 | A7117015 | Diode, Zener, 04AZ10Y |
| D410 | A7116815 | Diode, Zener, 04AZ8.2Y |
| D594 | 23115599 | Diode, 1N4148 |
| D595 | 23115599 | Diode, 1N4148 |
| D596 | 23115599 | Diode, 1N4148 |
| D603 | 23115599 | Diode, 1N4148 |
| D604 | 23115599 | Diode, 1N4148 |
| D803 | 23118173 | Diode, RBV-406M-LFA |
| D807 | 23118479 | Diode, BYD33J |
| D808 | 23118479 | Diode, BYD33J |
| D809 | 23118479 | Diode, BYD33J |
| D810 | 23118479 | Diode, BYD33J |

| Location No. | Part No. | Description |
|--------------|----------|-------------------------------|
| D811 | A7117415 | Diode, Zener, 04AZ15Y |
| D812 | 23118479 | Diode, BYD33J |
| D813 | 23118479 | Diode, BYD33J |
| D814 | 23118479 | Diode, BYD33J |
| D815 | 23118479 | Diode, BYD33J |
| D816 | 23118479 | Diode, BYD33J |
| D817 | 23118451 | Diode, RU4A |
| D818 | 23118451 | Diode, RU4A |
| D819 | 23118479 | Diode, BYD33J |
| D821 | 23115599 | Diode, 1N4148 |
| D822 | A7275400 | Diode, 1S2462 |
| D824 | 23115599 | Diode, 1N4148 |
| D826 | 23118479 | Diode, BYD33J |
| D828 | 23118052 | Diode, RU4Z |
| D830 | 23115599 | Diode, 1N4148 |
| D832 | A7116715 | Diode, Zener, 04AZ7.5Y |
| D837 | 23115599 | Diode, 1N4148 |
| DA01 | 23115599 | Diode, 1N4148 |
| DA02 | 23115599 | Diode, 1N4148 |
| DA03 | 23115599 | Diode, 1N4148 |
| DA04 | 23115599 | Diode, 1N4148 |
| DA05 | 23115599 | Diode, 1N4148 |
| DA06 | 23115599 | Diode, 1N4148 |
| DA07 | 23115599 | Diode, 1N4148 |
| DA08 | 23115599 | Diode, 1N4148 |
| DA09 | 23115599 | Diode, 1N4148 |
| DA10 | 23115599 | Diode, 1N4148 |
| DA11 | 23115599 | Diode, 1N4148 |
| DA13 | 23115599 | Diode, 1N4148 |
| DA14 | 23115599 | Diode, 1N4148 |
| DA15 | 23115599 | Diode, 1N4148 |
| DA16 | 23115599 | Diode, 1N4148 |
| DA17 | 23115599 | Diode, 1N4148 |
| DA18 | 23115599 | Diode, 1N4148 |
| DA21 | 23115599 | Diode, 1N4148 |
| DA22 | 23115599 | Diode, 1N4148 |
| DA23 | 23115599 | Diode, 1N4148 |
| DA26 | 23115599 | Diode, 1N4148 |
| DA27 | 23115599 | Diode, 1N4148 |
| DA28 | 23115599 | Diode, 1N4148 |
| DA29 | 23115599 | Diode, 1N4148 |
| DA30 | 23115878 | Diode, Zener, μ PC574J |
| DA31 | 23115599 | Diode, 1N4148 |
| DA32 | 23115599 | Diode, 1N4148 |
| DA35 | 23115599 | Diode, 1N4148 |
| DE11 | A7288601 | Diode, 1S2186 FA-1 |
| DE12 | A7288601 | Diode, 1S2186 FA-1 |
| DE13 | A7288601 | Diode, 1S2186 FA-1 |
| DE40 | 23118969 | Diode (LED), MV57124, Red |
| DG01 | 23115599 | Diode, 1N4148 |
| DG02 | 23115599 | Diode, 1N4148 |
| DG03 | 23115599 | Diode, 1N4148 |
| DG04 | 23115599 | Diode, 1N4148 |
| DG05 | 23115599 | Diode, 1N4148 |
| DG40 | 23318436 | Diode (LED), MV53124A, Yellow |
| DG41 | 23318436 | Diode (LED), MV53124A, Yellow |
| DH01 | 23115599 | Diode, 1N4148 |
| DH02 | 23115599 | Diode, 1N4148 |
| DH03 | 23115599 | Diode, 1N4148 |
| DH04 | 23115599 | Diode, 1N4148 |
| DH05 | 23115599 | Diode, 1N4148 |
| DH06 | 23115599 | Diode, 1N4148 |

| Location No. | Part No. | Description |
|----------------------|----------|------------------------------------------|
| DH07 | 23115599 | Diode, 1N4148 |
| DH08 | 23115599 | Diode, 1N4148 |
| DH10 | A7116215 | Diode, Zener, 04AZ4.7Y |
| DN01 | A7288601 | Diode, 1S2186 FA-1 |
| DN02 | A7288601 | Diode, 1S2186 FA-1 |
| DN03 | A7116415 | Diode, Zener, 04AZ5.6Y |
| DN04 | A7288601 | Diode, 1S2186 FA-1 |
| DN05 | A7116305 | Diode, Zener, 04AZ5.1X |
| DN06 | A7288601 | Diode, 1S2186 FA-1 |
| DN07 | A7288601 | Diode, 1S2186 FA-1 |
| DN08 | A7288601 | Diode, 1S2186 FA-1 |
| DN09 | A7288601 | Diode, 1S2186 FA-1 |
| DN11 | A7288601 | Diode, 1S2186 FA-1 |
| DN12 | A7288601 | Diode, 1S2186 FA-1 |
| DN13 | A7288601 | Diode, 1S2186 FA-1 |
| DV01 | A7116925 | Diode, Zener, 04AZ9.1Z |
| DV02 | A7116815 | Diode, Zener, 04AZ8.2Y |
| MISCELLANEOUS | | |
| △ F801 | 23144896 | Fuse, T2.0A |
| F801A | 23165102 | Fuse Clip |
| K901 | 23120439 | Remote Sensor, IR-9103-K |
| P003 | 23161699 | Terminal, 4P |
| P661 | 23363607 | Headphone Jack, 3.5mm |
| △ P801 | 23176704 | Power Cord |
| PH01 | 23365025 | 21 Pin Connector |
| PH02 | 23365025 | 21 Pin Connector |
| S202 | 23145542 | Switch, Lever, 1C3P |
| S301 | 23145682 | Switch, Lever, 1C3P |
| △ S801 | 23145434 | Switch, Power, 2C2P |
| SA01 | 23145428 | Switch, Push, 1C1Px4 |
| SA02 | 23145428 | Switch, Push, 1C1Px4 |
| SA03 | 23145428 | Switch, Push, 1C1Px4 |
| SA04 | 23145428 | Switch, Push, 1C1Px4 |
| SA05 | 23145429 | Switch, Push, 1C1Px3 |
| SA06 | 23145429 | Switch, Push, 1C1Px3 |
| SA07 | 23145429 | Switch, Push, 1C1Px3 |
| SV01 | 23365506 | Jack, S-VHS |
| SV02 | 23365351 | Jack, Phono, 3P |
| △ V901A | 23902353 | Socket, CRT, 10P |
| W201 | 23250877 | Coil, Delay Line, TRF2032 |
| W661 | 23151207 | Speaker, SPK1275, 100x100mm, 4 ohm |
| W662 | 23151300 | Speaker, SPK1191, 40x40mm, 140 ohm |
| W663 | 23151207 | Speaker, SPK1275, 100x100mm, 4 ohm |
| W664 | 23151300 | Speaker, SPK1191, 40x40mm, 140 ohm |
| X401 | 23153886 | Ceramic Resonator, 50kHz, TCR1012 |
| X501 | 23153979 | Crystal, 4.43MHz |
| X502 | 23250950 | Coil, 1H-Delay Line, DL7 11 |
| X503 | 23153961 | Crystal, 3.58MHz |
| Z101 | A5611197 | PIF SAW Filter, F1038F |
| Z102 | 23153725 | Ceramic Resonator, TCF1043 |
| Z103 | 23107911 | Ceramic Video Trap, 5.5 to 6MHz, TCF1019 |
| Z104 | 23107658 | Ceramic Video Trap, 5.74MHz, TCF1052 |
| Z201 | 23107925 | Ceramic Video Trap, 6.5MHz, TCF1013 |
| Z601 | A5615257 | SIF SAW Filter, 32.7MHz, F1808D |

| Location No. | Part No. | Description |
|--------------|----------|--------------------------------------------|
| Z661 | 23107855 | Ceramic Filter, 5.5MHz, TCF1031 |
| Z662 | 23107948 | Ceramic Filter, 6.0MHz, SFE6.0MBF |
| Z663 | 23107949 | Ceramic Filter, 6.5MHz, SFE6.5MBF |
| Z664 | 23153900 | Ceramic Resonator, 500kHz, TCR1010 |
| Z666 | 23107948 | Ceramic Filter, 6.0MHz, SFE6.0MBF |
| ZA01 | 23153845 | Ceramic Resonator, 4MHz, TCR1015 |
| ZA02 | 24094651 | Capacitor Block, 100pFx4, 50V |
| ZV01 | 23107849 | Ceramic Video Trap, 4.43MHz, TCF1032 |
| ZV02 | 23107787 | Ceramic Video Trap, 3.58MHz, TCF1023 |

PC BOARD ASSEMBLIES

| | | |
|-------|----------|---------------------------|
| U902 | 23335589 | Main Board, PW9124 |
| U903A | 23335749 | Power Board, PW9202-1 |
| U903B | 23335750 | MPX Board, PW9202-2 |
| U903C | 23335751 | CRT Drive Board, PW9202-3 |
| U903D | 23335752 | Tone Board, PW9202-4 |

PICTURE TUBE

| | | |
|------------------------------------------------------------------------------------------|----------|---------------------------|
| V901 | 23312067 | Picture Tube, A51EBV12X01 |
|------------------------------------------------------------------------------------------|----------|---------------------------|

TUNER

| | | |
|------|----------|------------------------|
| H001 | 23121612 | Tuner, VHF/UHF, EF442A |
|------|----------|------------------------|

REMOTE HAND SET PARTS

| | | |
|------|----------|----------------------------------|
| K902 | 23120478 | Remote Hand Unit, CT9357 |
| AT01 | 23300909 | Upper Case |
| AT02 | 23300919 | Lower Case |
| AT03 | 23300920 | Battery Cover |
| AT04 | 23300921 | Filter |
| ST01 | 23300910 | Rubber Sheet |
| UT01 | 23335516 | PC Board, PW6974 |
| ZT01 | 23153736 | Ceramic Resonator, SCB455EB20 |

| Location No. | Part No. | Description |
|--------------|----------|-------------|
| | | |

TERMINAL VIEW OF TRANSISTORS

- ① BC327
BC337
BC547A
BC547B
BC547C
BC557A
BC557B
BC556A



- ② 2SK30ATM
2SK117



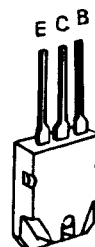
- ③ BD202



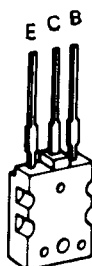
- ④ BF871
2SD553
2SC1569



- ⑤ 2SC3678
2SC3182N



- ⑥ 2SD1427
2SD1432



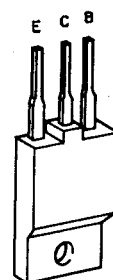
- ⑦ 2SC2482
2SA1321
2SC2230
2SA1020
2SC2655
2SC752GTM



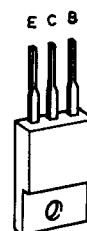
- ⑧ 2SC388ATM
2SA1015
2SC1959
2SA562TM



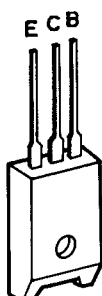
- ⑨ 2SD1548



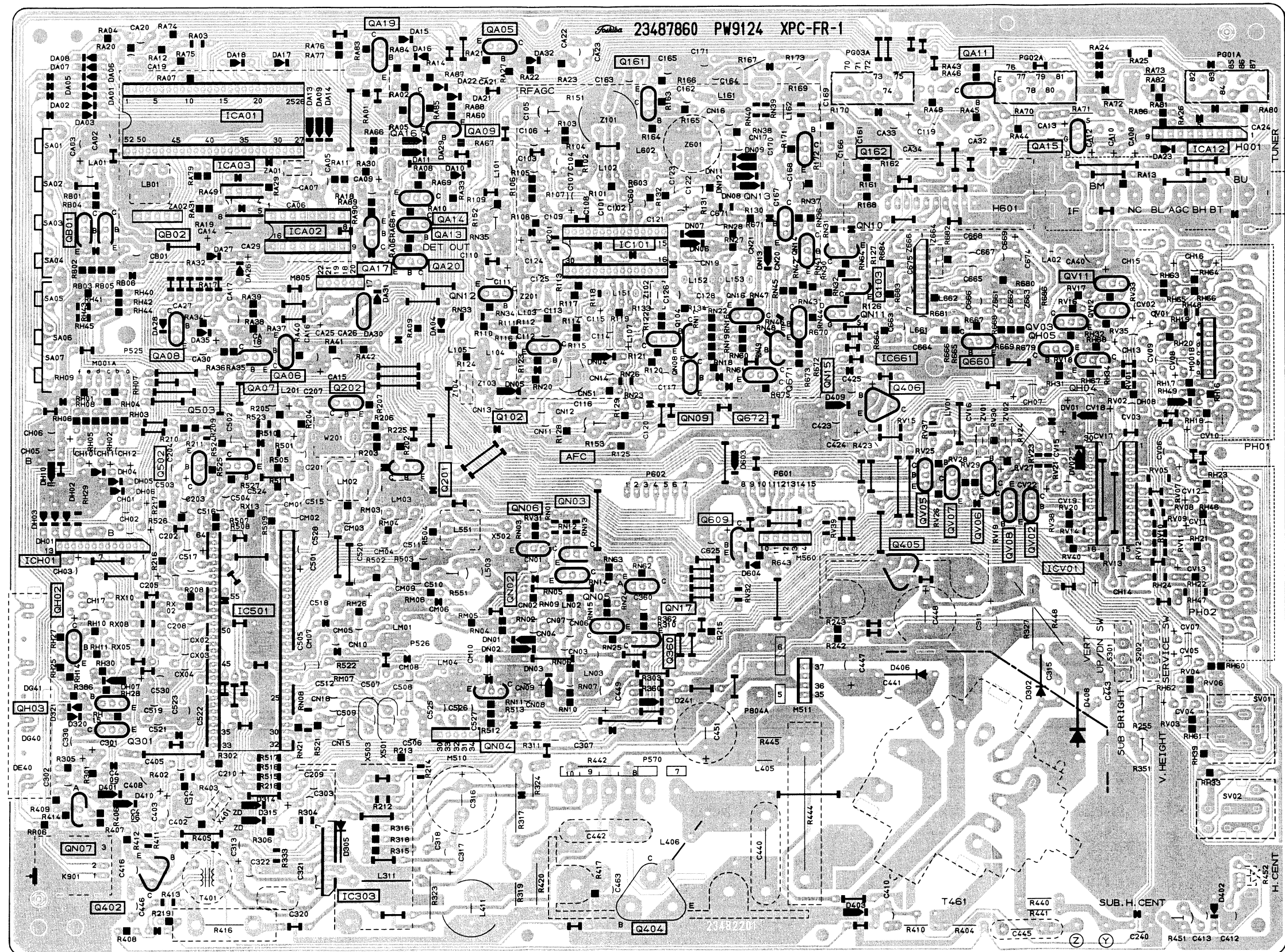
- ⑩ 2SC2023



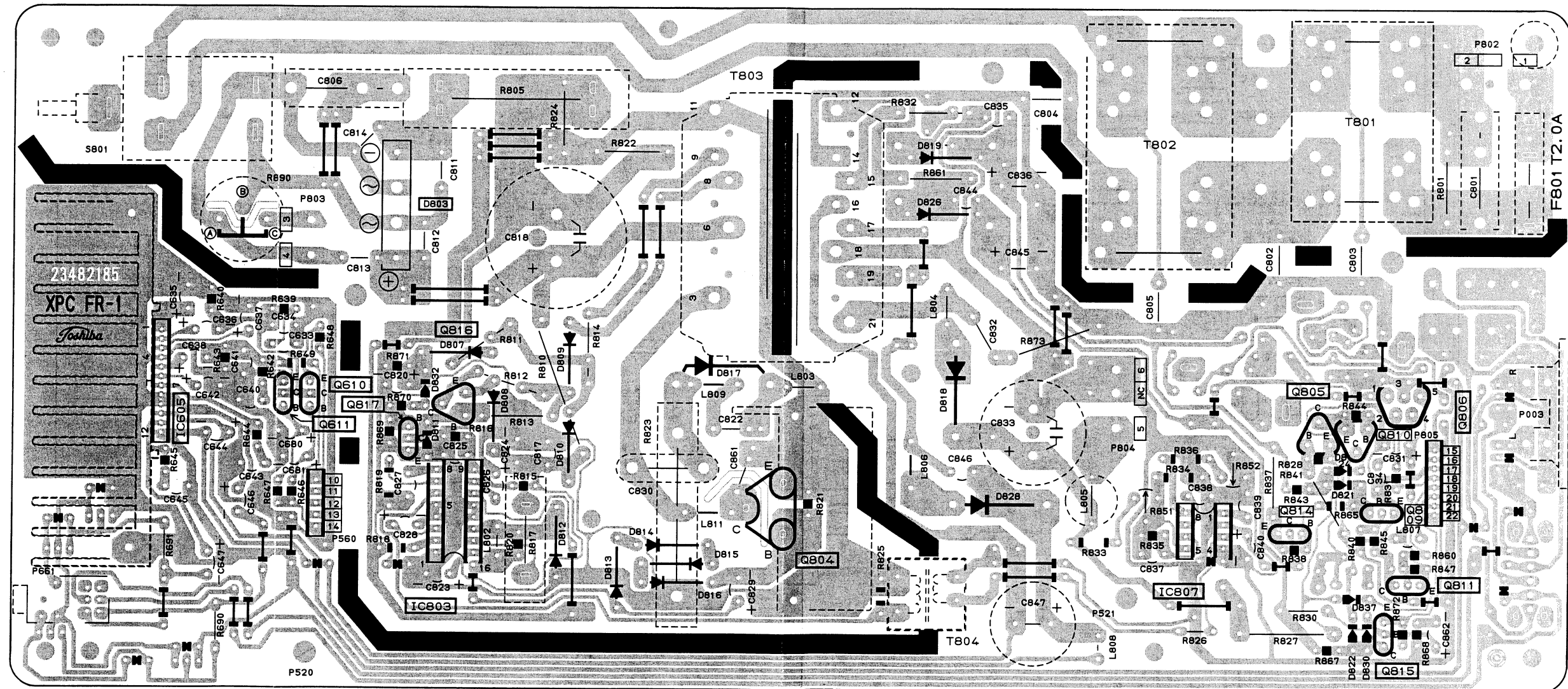
- ⑪ ON4409



MAIN BOARD PW9124
BOTTOM (FOIL) SIDE

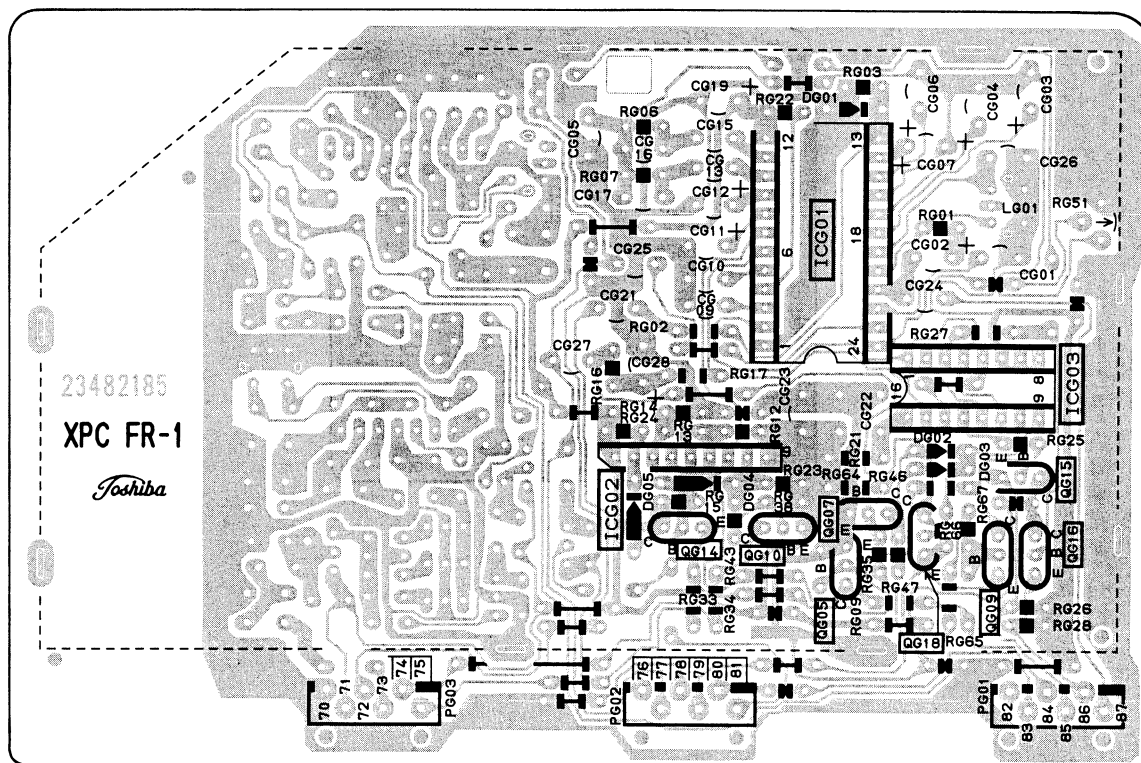


POWER/AUDIO BOARD PW9202-1
BOTTOM (FOIL) SIDE



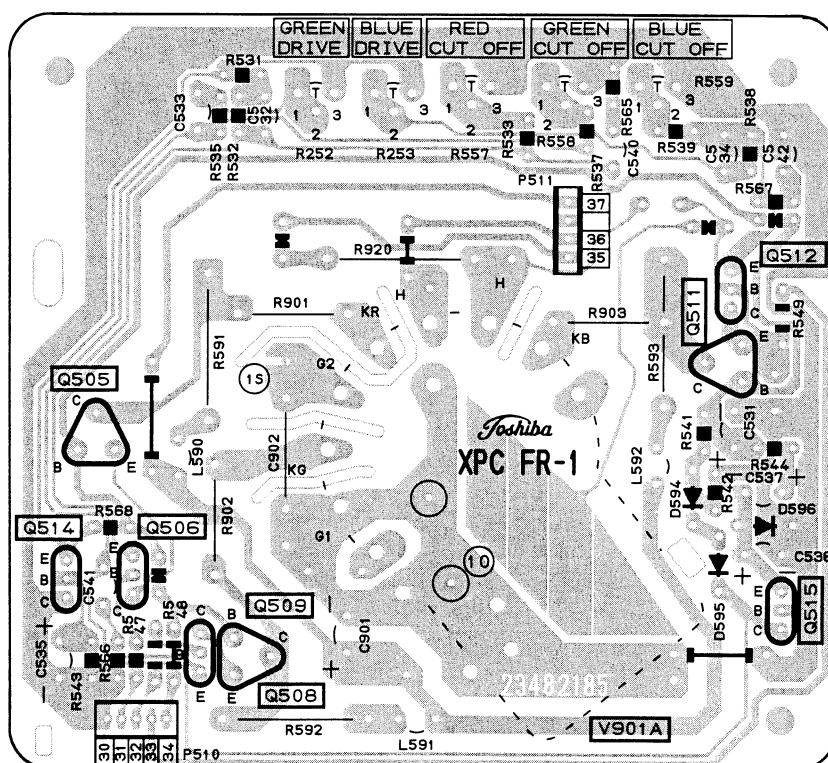
MPX STEREO BOARD PW9202-2

BOTTOM (FOIL) SIDE

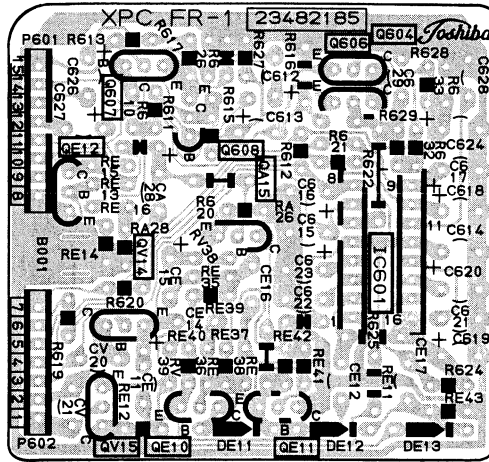


CRT DRIVE BOARD PW9202-3

BOTTOM (FOIL) SIDE



TONE CONT. BOARD PW9202-4
BOTTOM (FOIL) SIDE



218S9F

SCHEMATIC DIAGRAM (1/2)

IMPORTANT SAFETY NOTICE

Component marked with the International Hazard Symbol must, if changed, be replaced by an approved type and must be mounted as the original. This will ensure that the safety standards adhered to during manufacture will be maintained following any servicing procedure.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltage readings were obtained using a high impedance digital voltmeter.
2. (—) or ground lead of instruments should be connected to the ground marked (⊥) in the schematic on checking Non-isolated circuit surrounded by mark but should be connected to the points marked (≡) on checking isolated circuit.
3. The voltage readings may vary as much as $\pm 20\%$.
4. Check that the Tuning, A.F.C., Brightness, Contrast and Colour controls are adjusted for the best picture, making sure that the Contrast, Brightness and Colour controls are set near to their mid-positions.
5. The waveforms were taken using a standard colour bar signal and were observed using a wide band oscilloscope via a low capacity probe.

NOTES:

1. This circuit diagram is subject to change without notice.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000.
2. Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH , and the values less than 1 in H.

GROUNDING SYMBOL

1. \perp : Non isolated ground, \equiv : Isolated ground.

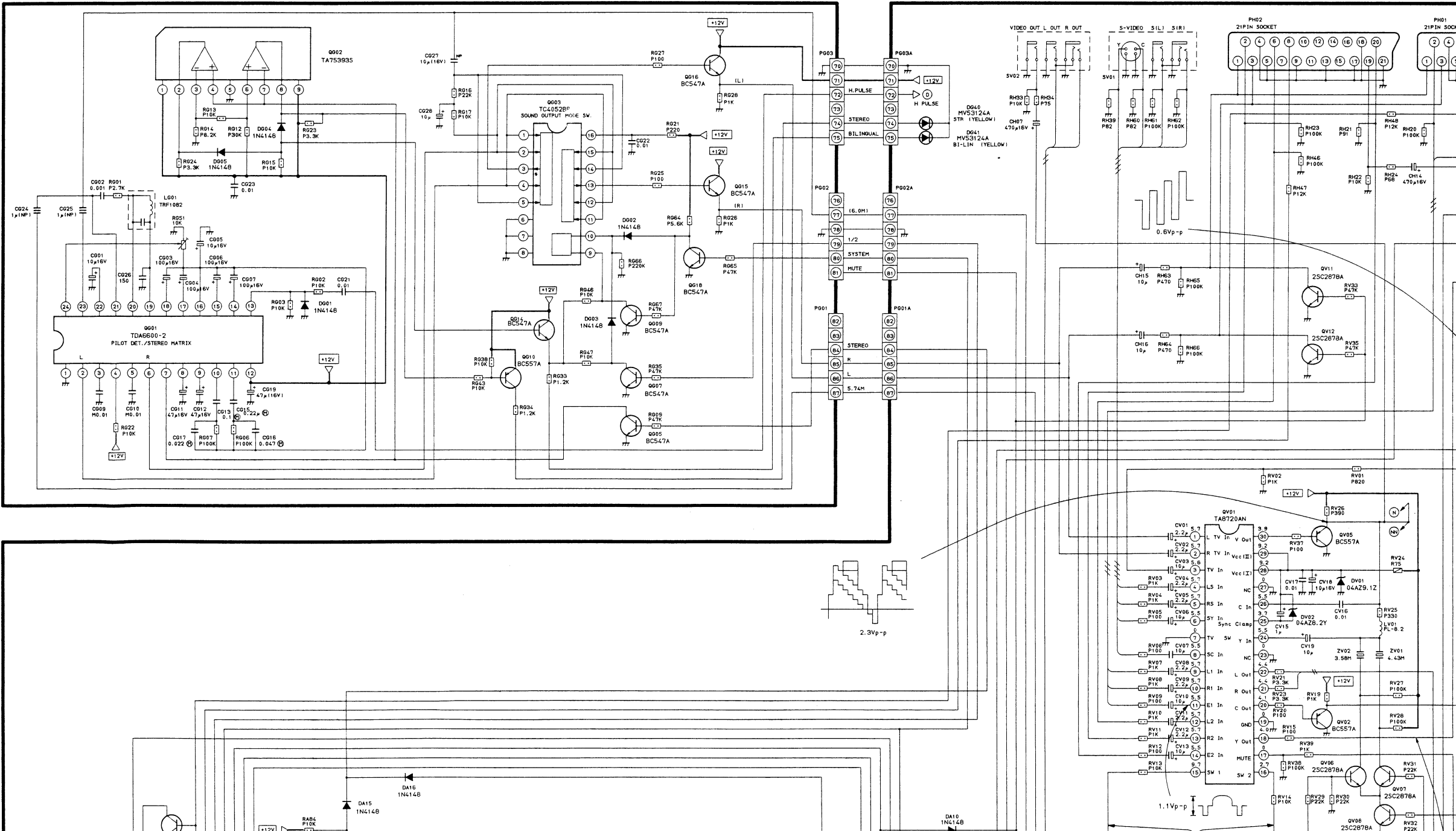
RESISTOR

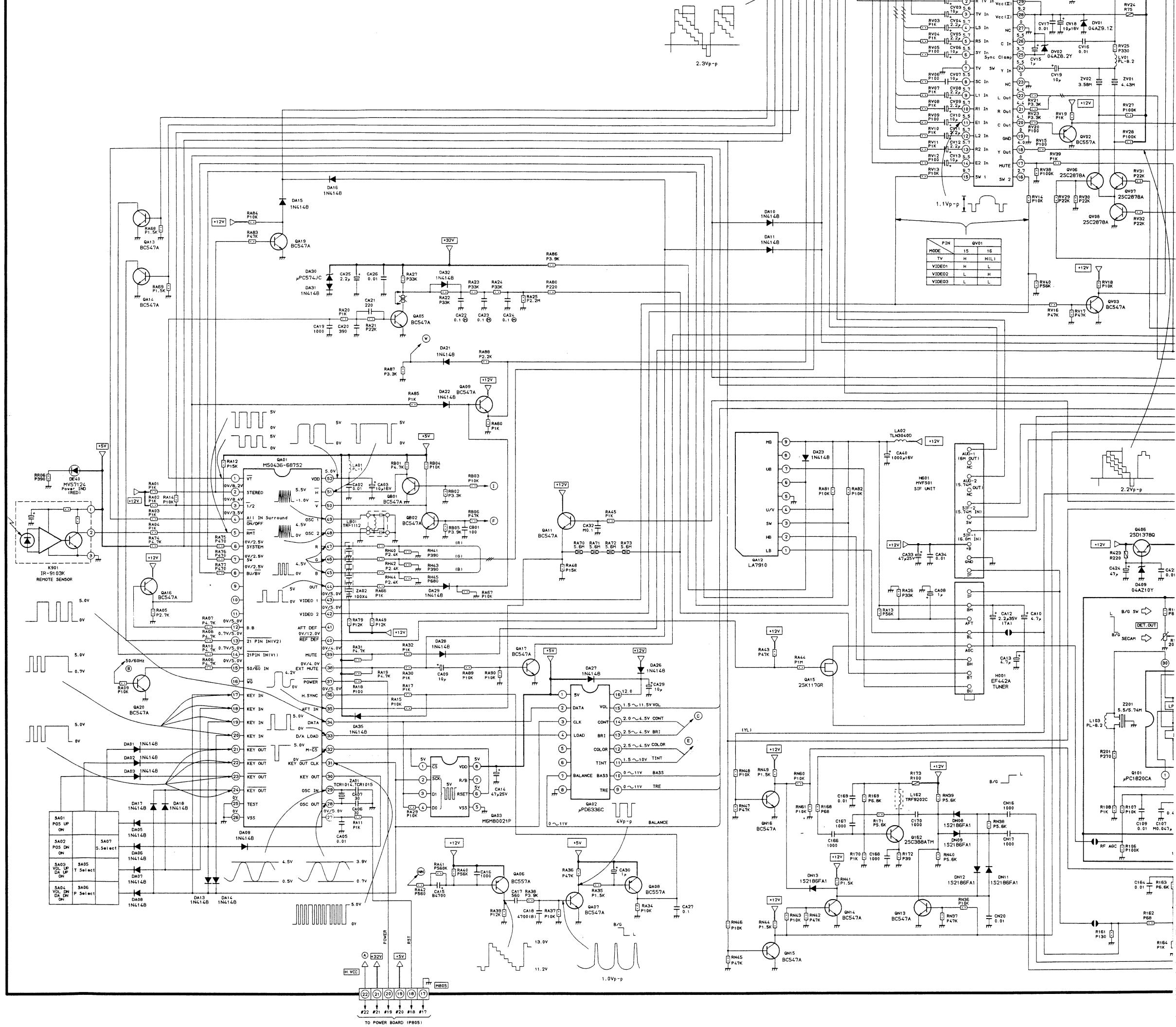
Prefixed to

| |
|-----------|
| Carbon |
| Oxide |
| Ins. Coat |
| Wirewound |
| Cement |
| Fused |

U903B MPX BOARD PW9202-2

U902A MAIN BOARD PW9124





RESISTORS

are expressed in
are expressed in

| Prefixed to values: | |
|---------------------|---------|
| TYPE | MARK |
| Carbon Comp. | S |
| Oxide Metal Film | R |
| Ins. Carbon Film | P |
| Wire Wound | W |
| Cement covered W.W. | NO MARK |
| Fusible Res. | FR |

Suffixes to values:

| TOLERANCE | MARK |
|-----------|------|
| ±1% | (F) |
| ±2% | (G) |

Suffixes to VR values:

| LAW | MARK |
|--------------------------|------|
| Linear | (B) |
| 'C' Curve Characteristic | (C) |

Rating Markings:

| WATTAGE | MARK |
|---------|------|
| 1/6W | |
| 1/4W | |
| 1/2W | |
| 1W | |
| 2W | |

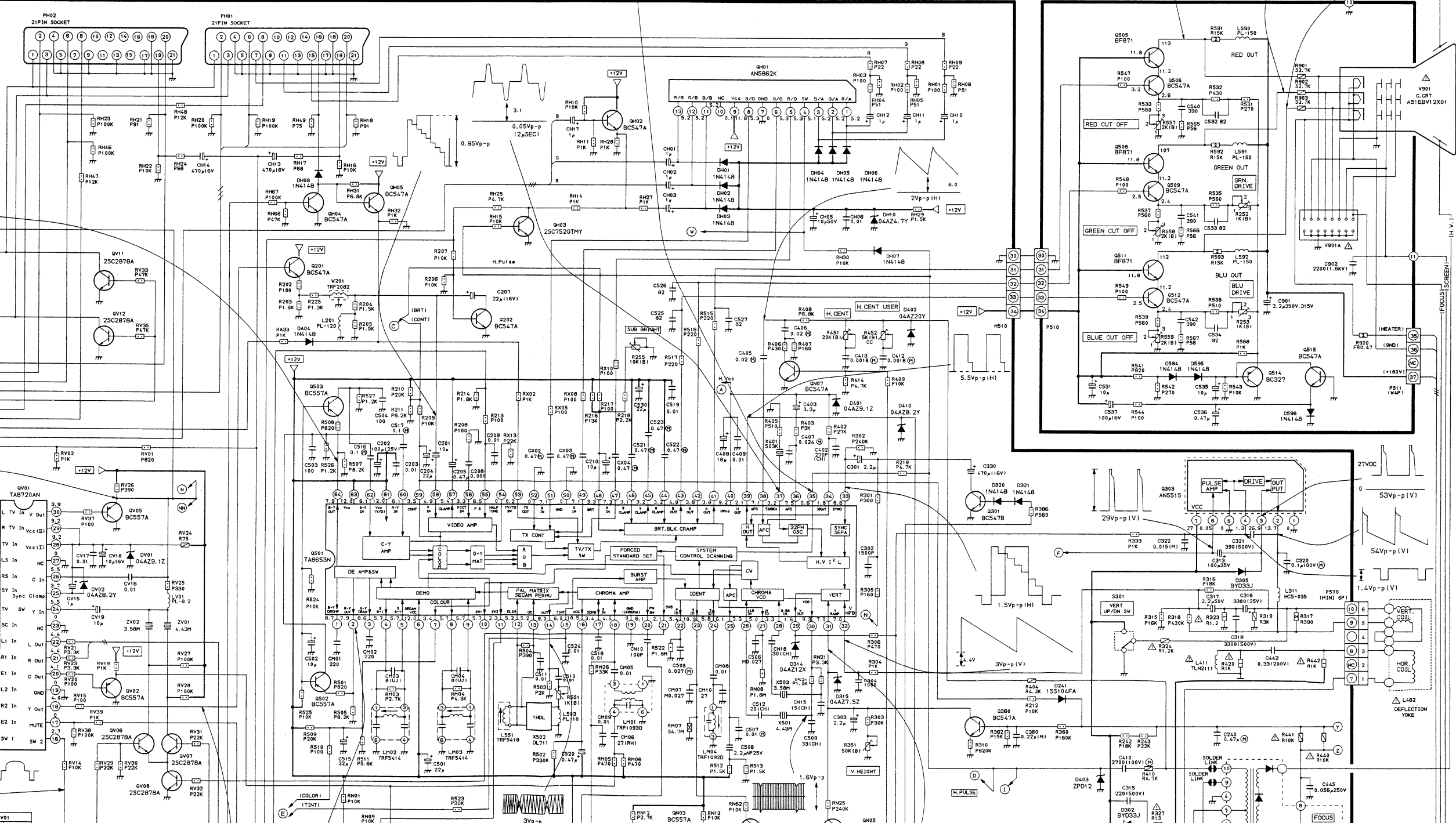
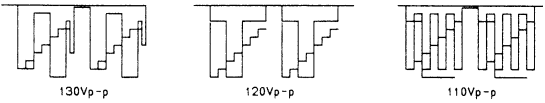
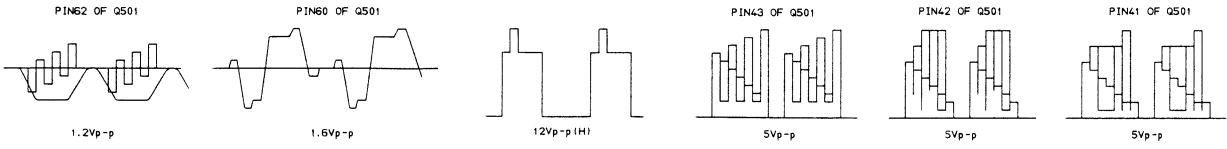
| WATTAGE | MARK |
|---------|------|
| 3W | |
| 5W | |
| 10W | |
| 15W | |
| 20W | |
| 25W | |

CAPACITORS

Rating Markings:

| Type | Mark |
|------------------------|------|
| Ceramic Disc 50V Only | |
| Electrolytic | |
| Electrolytic Non-Polar | |
| Variable Capacitor | |
| Other | |

| | |
|----------------|--------------------|
| 1 AUDIO OUT(R) | 11 GREEN IN |
| 2 AUDIO IN(R) | 12 NC |
| 3 AUDIO OUT(L) | 13 RED EARTH |
| 4 AUDIO EARTH | 14 NC |
| 5 EARTH | 15 RED IN |
| 6 AUDIO IN(L) | 16 RAPID BLANKING |
| 7 BLUE IN | 17 VIDEO EARTH |
| 8 EXT/TV | 18 RAPID BLK EARTH |
| 9 GREEN EARTH | 19 VIDEO OUT |
| 10 NC | 20 VIDEO IN |
| | 21 SHIELD EARTH |





218S9F

SCHEMATIC DIAGRAM (2/2)

IMPORTANT SAFETY NOTICE

Component marked with the International Hazard Symbol must, if changed, be replaced by an approved type and must be mounted as the original. This will ensure that the safety standards adhered to during manufacture will be maintained following any servicing procedure.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltage readings were obtained using a high impedance digital voltmeter.
2. (—) or ground lead of instruments should be connected to the ground marked (⊥) in the schematic on checking Non-isolated circuit surrounded by mark but should be connected to the points marked (≡) on checking isolated circuit.
3. The voltage readings may vary as much as $\pm 20\%$.
4. Check that the Tuning, A.F.C., Brightness, Contrast and Colour controls are adjusted for the best picture, making sure that the Contrast, Brightness and Colour controls are set near to their mid-positions.
5. The waveforms were taken using a standard colour bar signal and were observed using a wide band oscilloscope via a low capacity probe.

NOTES:

1. This circuit diagram is subject to change without notice.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000.
2. Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH , and the values less than 1 in H.

GROUNDING SYMBOL

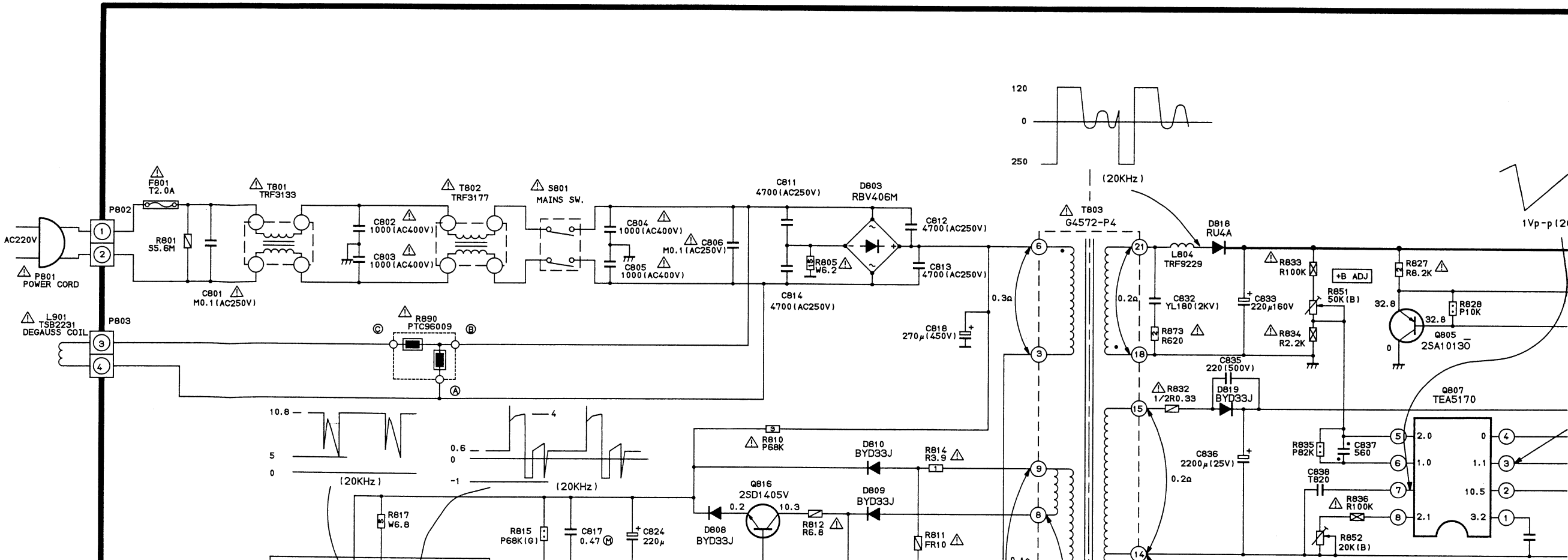
1. ⊥: Non isolated ground, ≡: Isolated ground.

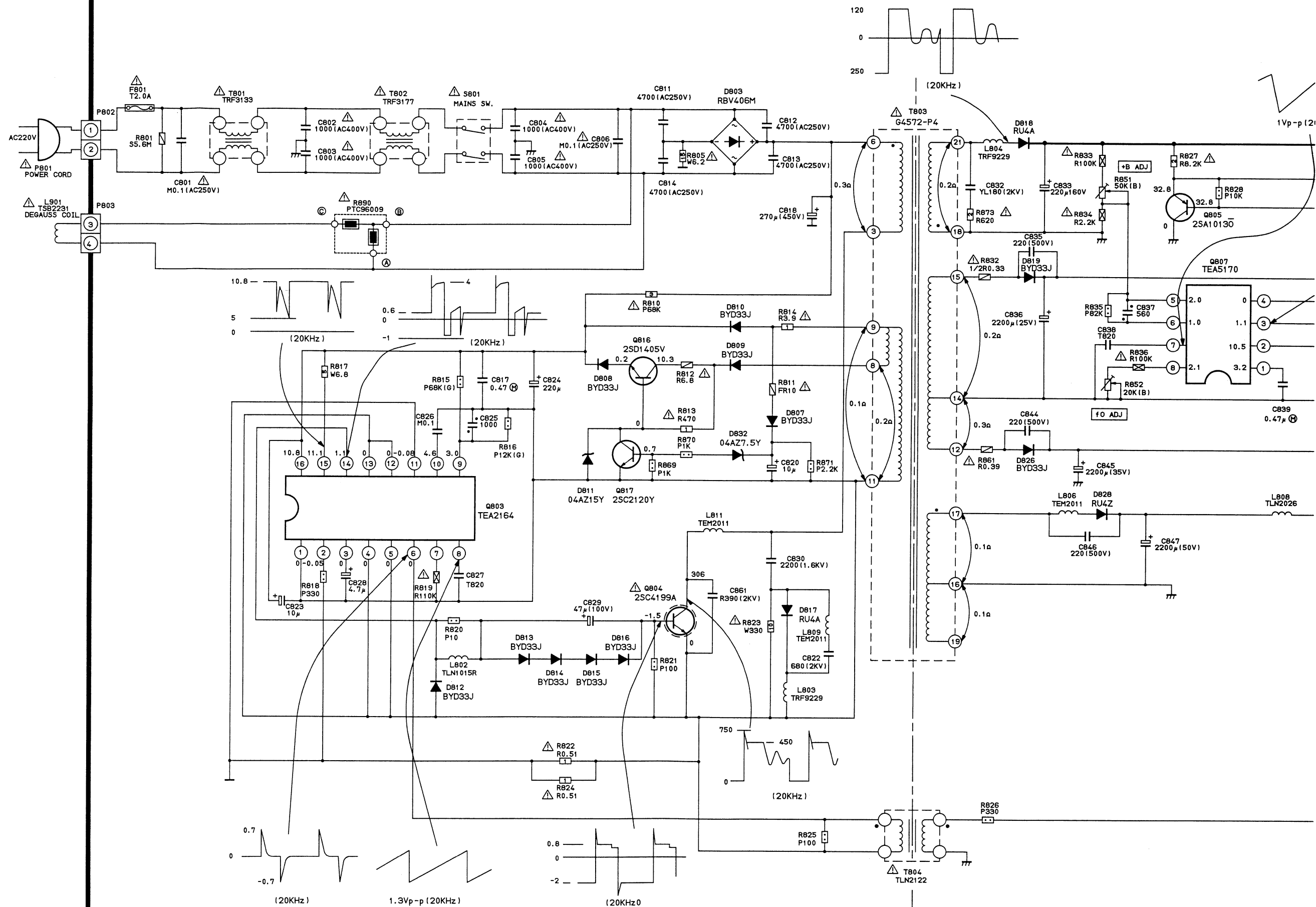
RESISTOR

Prefixed to value

| TY |
|-----------|
| Carbon |
| Oxide M |
| Ins. Carb |
| Wire W |
| Cement co |
| Fusibl |

U902A POWER/AUDIO BOARD PW9202-1





RESISTORS

Prefixed to values:

| TYPE | MARK |
|---------------------|---------|
| Carbon Comp. | S |
| Oxide Metal Film | R |
| Ins. Carbon Film | P |
| Wire Wound | W |
| Cement covered W.W. | NO MARK |
| Fusible Res. | FR |

Suffixes to values:

| TOLERANCE | MARK |
|-----------|------|
| $\pm 1\%$ | (F) |
| $\pm 2\%$ | (G) |

Suffixes to VR values:

| LAW | MARK |
|--------------------------|------|
| Linear | (B) |
| 'C' Curve Characteristic | (C) |

Rating Markings:

| WATTAGE | MARK |
|---------|------|
| 1/6W | |
| 1/4W | |
| 1/2W | |
| 1W | |
| 2W | |

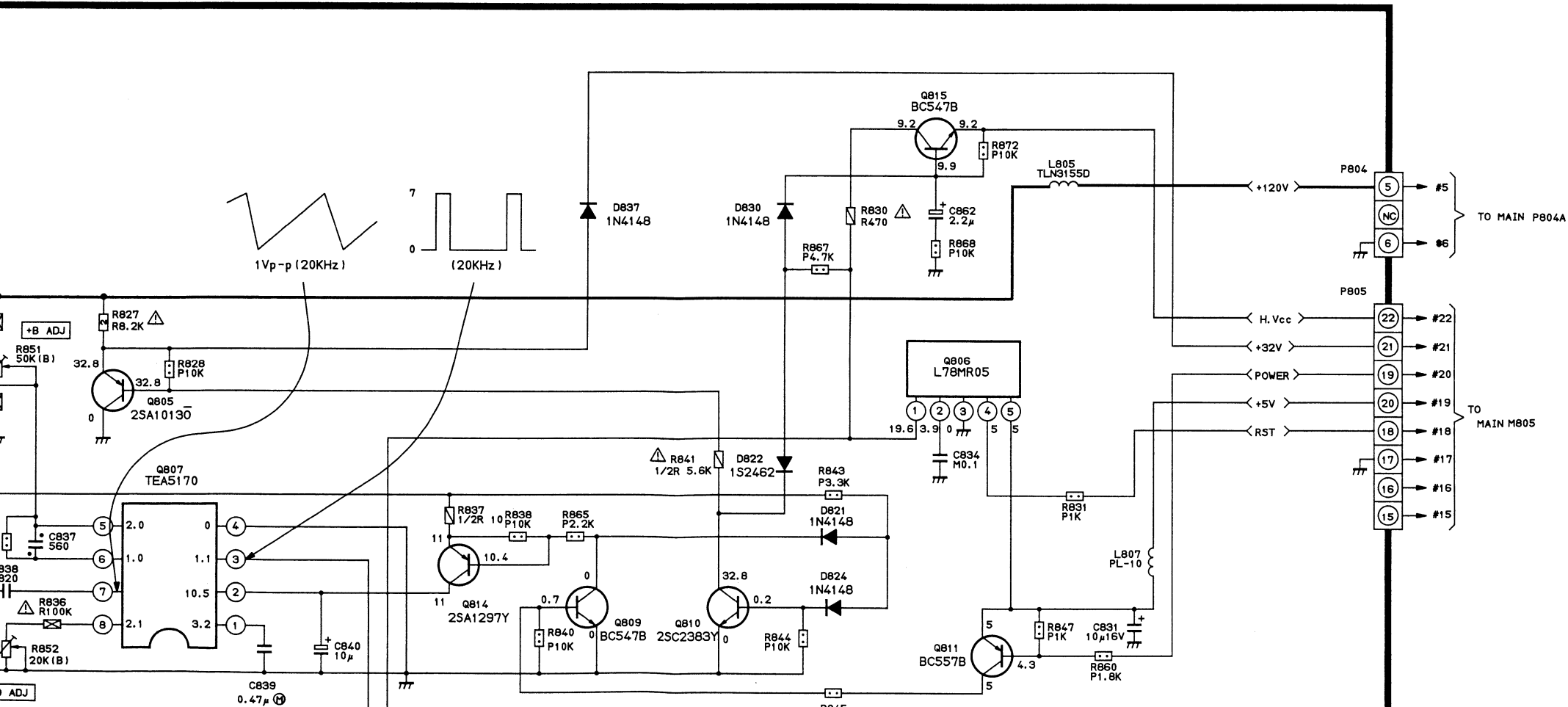
| WATTAGE | MARK |
|---------|------|
| 3W | |
| 5W | |
| 10W | |
| 15W | |
| 20W | |
| 25W | |

CAPACITORS

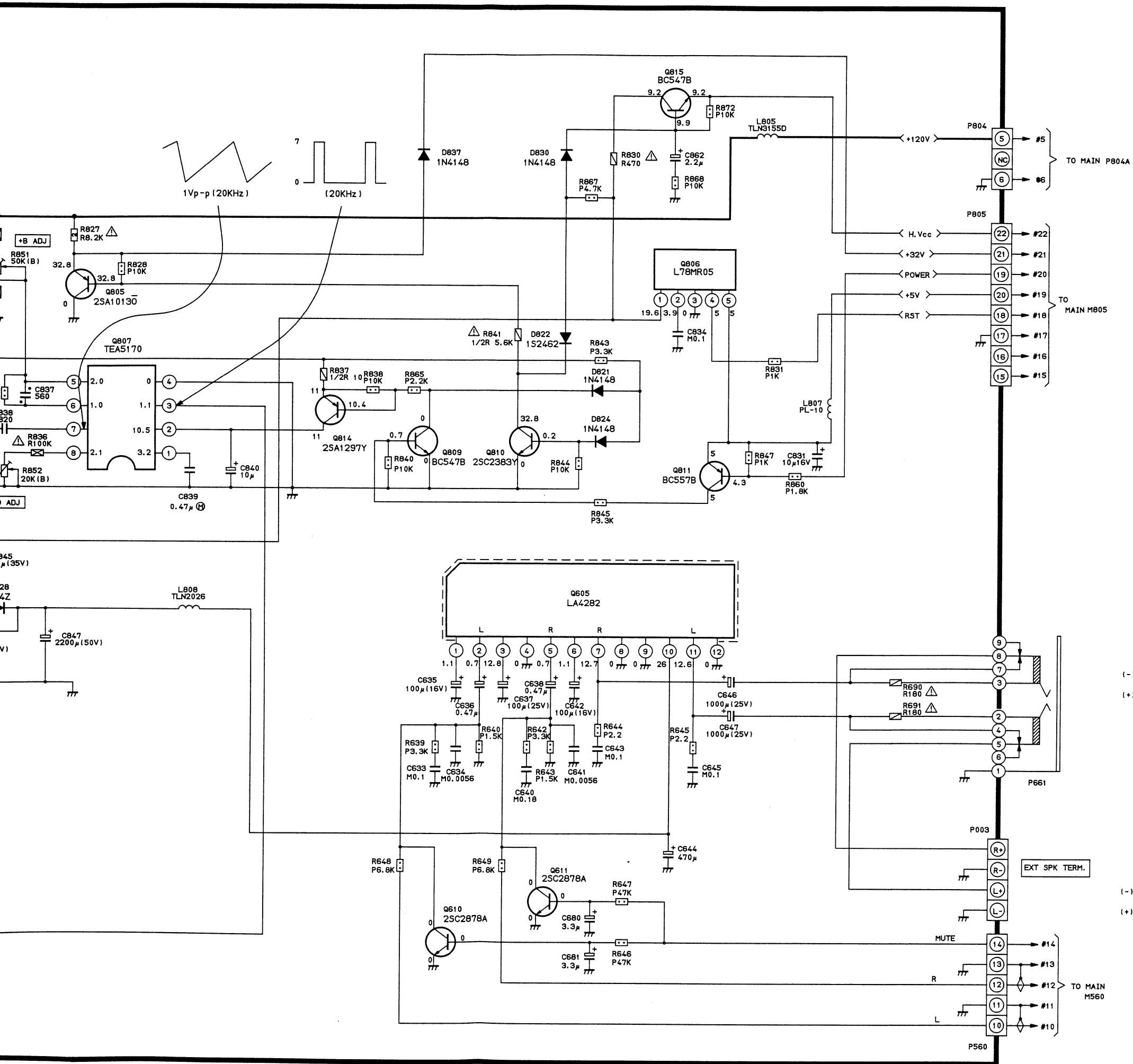
Rating Markings:

| Type | Mark |
|------------------------|------|
| Ceramic Disc 50V Only | |
| Electrolytic | |
| Electrolytic Non-Polar | |
| Variable Capacitor | |
| Other | |

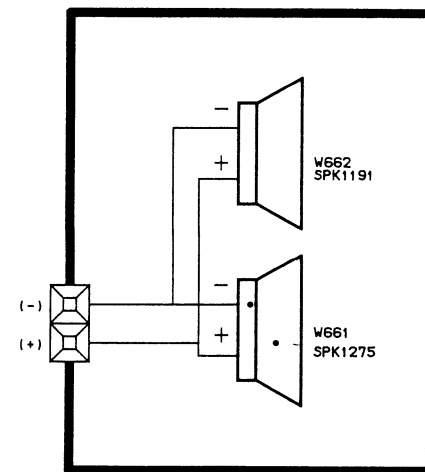
re expressed in
re expressed in



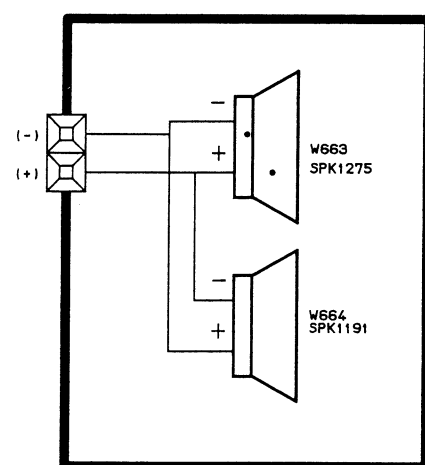
SPK BOX (R)



SPK BOX (R)



SPK BOX (L)



TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105, JAPAN